

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

- Additional comments /  
Commentaires supplémentaires:

Various pagings.

In Sessional paper No. 9, page # 38 is upside down.

In Sessional paper No. 9, page 98 is incorrectly numbered page 8.

In Sessional paper No. 10, page lxxxix is incorrectly numbered page lxxvix.

In Sessional paper No. 10, page 465 is incorrectly numbered page 463.

# SESSIONAL PAPERS

VOLUME 7

SIXTH SESSION OF THE SEVENTH PARLIAMENT

OF THE

DOMINION OF CANADA.

SESSION 1896





891030

See also Numerical List, page 4.

# ALPHABETICAL INDEX

## OF THE

# SESSIONAL PAPERS

## OF THE

# PARLIAMENT OF CANADA

SIXTH SESSION, SEVENTH PARLIAMENT, 1896.

NOTE.—In order to find quickly whether a paper has been printed or not, the mark (n.p.) has been inserted when not printed; papers not so marked, it may be understood, are printed. Further information concerning each paper is to be found in the List, commencing on page 4.

A	C
Adams, E .....(n.p.) 86	Census, North-west Territories.....(n.p.) 54
Adulteration of Food..... 7b	Central Experimental Farm .....(n.p.) 45
Agriculture, Annual Report..... 8	Chamberlain, Charles.....(n.p.) 53
Alaska, Boundary of.....(n.p.) 74	Chambly Canal.....(n.p.) 57
"Alert," Steamer.....(n.p.) 59	Chartered Banks..... 3
Archives, Canadian..... 8a	Chatham Industries .....(n.p.) 33
Auditor General, Annual Report..... 1	Chicago Drainage Channel..... 82
	Civil Service:
<b>B</b>	Board of Examiners ..... 16c
Baie des Chaleurs Railway.....(n.p.) 58	Insurance Act.....(n.p.) 37
Banks, unclaimed Balances in..... 3a	List..... 16a
Baptisms, Marriages and Burials.....(n.p.) 73	Superannuations.....(n.p.) 23, 36, 63
Barnardo's Boys.....(n.p.) 87	Temporary Clerks.....(n.p.) 85
Barry's Bay Station.....(n.p.) 40	Commissions to Public Officers..... 26
Beer in Neepawa.....(n.p.) 51	Copyright Question..... 8b
Beet Root.....(n.p.) 55	Corn Imported.....(n.p.) 60
Beliveau, Joseph.....(n.p.) 90	Corn Mills.....(n.p.) 25
Bonds and Securities.....(n.p.) 34	Criminal Statistics..... 8d
Boundary of Alaska.....(n.p.) 74	Customs Service, Toronto.....(n.p.) 46
British Canadian Loan & Investment Co. (n.p.) 72	
British Columbia "Provisional Allowance" (n.p.) 65	<b>D</b>
British Columbia Railway Belt.....(n.p.) 31	Dividends Unpaid in Banks..... 3a
	Dominion Lands.....(n.p.) 31, 31a
<b>C</b>	Dominion Police Report.....(n.p.) 27
Canadian Coinage.....(n.p.) 71a	Donnelly, T.....(n.p.) 86
Canadian Pacific Railway:	Dr. Barnardo's Boys.....(n.p.) 87
Business with Interior Department... (n.p.) 32	
Lands sold by.....(n.p.) 32a	<b>E</b>
Canal Statistics..... 10b	Estimates..... 2
Cattle, Transit of.....(n.p.) 38, 38a	Excise..... 7
Cayuga, Sale of Lots in.....(n.p.) 83	Exhibition at Regina.....(n.p.) 75
	Experimental Farm, Central.....(n.p.) 45
	Experimental Farms, Annual Report..... 8c

<b>F</b>	
Fisheries, Annual Report.....	11a
Fishing Bounties.....(n.p.)	30
Fishing Licenses.....(n.p.)	29, 81
Freight Rates Commission.....(n.p.)	70
<b>G</b>	
Geological Survey Report.....	13a
Girouard, Hon. Désiré.....(n.p.)	47
Goodwin, George.....(n.p.)	76
Governor General's Warrants.....(n.p.)	22
Guard Pier, Montreal.....(n.p.)	80
<b>H</b>	
High Commissioner.....	5a
High Commissioner.....(n.p.)	48, 71, 71a
<b>I</b>	
Indian Affairs, Annual Report.....	14
Indians, St. Peter's Reserve.....(n.p.)	28
Inland Revenue, Annual Report.....	7
Insurance, Annual Report.....	4
Insurance, Civil Service.....(n.p.)	37
Insurance Companies.....	4a, 4b
Intercolonial Railway.....(n.p.)	67
Interior, Annual Report.....	13
<b>J</b>	
Justice, Annual Report.....	18
<b>L</b>	
Lands, Dominion.....(n.p.)	31, 31a
Library of Parliament, Annual Report.....	17
Licenses to U. S. Fishing Vessels.....(n.p.)	29
List of Vessels.....	11c
Little Metis Bay.....(n.p.)	84, 84a
<b>M</b>	
Mail Services.....(n.p.)	35, 35a, 35b, 35c, 35d, 35e
Manitoba Schools.....	39, 39a, 39aa, 39c
Marine and Fisheries, Annual Report.....	11
Militia and Defence, Annual Report.....	19
Miscellaneous Unforeseen Expenses.....(n.p.)	24
Montreal Guard Pier.....(n.p.)	80
Montreal, Ottawa & Georgian Bay Canal (n.p.)	64
Moose Jaw.....(n.p.)	50
<b>Mc</b>	
McCarthy Act.....(n.p.)	52

<b>N</b>	
Neepawa, Beer in.....(n.p.)	51
North-west Mounted Police.....	15, 15a
North-west Territories, Census.....(n.p.)	54
North-west Territories, Schools.....	39b
<b>O</b>	
Ottawa, Arnprior & Parry Sound Ry. ....(n.p.)	40
Ottawa Canal.....(n.p.)	64
Ottawa Gas Company.....(n.p.)	92
Over-rulings of Treasury Board.....	1a
<b>P</b>	
Paspebiac Public Works.....(n.p.)	79
Pig Iron.....(n.p.)	21
Pilotage System, St. John, N.B.....	11b
Port Stanley Harbour.....(n.p.)	91
Postmaster General, Annual Report.....	12
Prince County Public Works.....(n.p.)	77a
Prior, Hon. E. G.....(n.p.)	44
Provencher, Licenses in.....(n.p.)	52
Provisional Allowance.....(n.p.)	65
Public Accounts, Annual Report.....	2
Public Officers' Commissions.....	26
Public Printing and Stationery.....	16b
Public Works, Annual Report.....	9
<b>R</b>	
Railways and Canals, Annual Report.....	10
Railway Statistics.....	10a
Railway Subsidies.....(n.p.)	68, 68a, 88
Regina Exhibition.....(n.p.)	75
Royal Military College.....	43, 43a, 43b, 43c
<b>S</b>	
Secretary of State, Annual Report.....	16
Senators, Appointments of.....(n.p.)	49
Schools, North-west Territories.....	39b
Sharp, David.....(n.p.)	81
Shipping, List of.....	11c
Shortis, Valentine.....	42
Soulanges Canal.....(n.p.)	76
St. Andrew's Rapids.....(n.p.)	78
Steamer "Alert".....(n.p.)	59
Steamboat Inspection.....	11d
Steamship Service.....(n.p.)	56
Steel Billets.....(n.p.)	20
St. John River, N.B.....(n.p.)	89
Superannuations, Civil Service.....(n.p.)	23, 36, 63
Sweating System.....	61, 61a

**T**

Territorial Exhibition.....(n.p.) 75  
 Tignish Breakwater .....(n.p.) 77  
 Toronto Customs Service.....(n.p.) 46  
 Trade and Commerce, Annual Report. .... 5  
 Trade and Navigation, Annual Report..... 6  
 Treasury Board Over-rulings..... 1a  
 Tupper, Sir Charles, Bart.....(n.p.) 41

**U**

Unclaimed Balances in Banks..... 3a  
 Unforeseen Expenses... ..(n.p.) 24  
 U. S. Cattle.....(n.p.) 38, 38a  
 U. S. Fishing Vessels.....(n.p.) 29

**W**

Wall, Dr. .... (n.p.) 69  
 Warrants, Governor General's.....(n.p.) 22  
 Weights, Measures and Gas..... 7a  
 Welland Canal.....(n.p.) 57a  
 Wheat Grades.....(n.p.) 62  
 Wingham Industries .....(n.p.) 33a  
 Wood, Hon. J. F.....(n.p.) 44

**Y**

Yale and Cariboo.....(n.p.) 66

See also Alphabetical Index, page 1.

## LIST OF SESSIONAL PAPERS

*Arranged in Numerical Order, with their Titles at full length; the Dates when Ordered and when Presented to both Houses of Parliament; the Name of the Member who moved for each Sessional Paper, and whether it is ordered to be Printed or not Printed.*

### CONTENTS OF VOLUME 1.

1. Report of the Auditor General on Appropriation Accounts, for the year 1894-95. Presented (First Part) 29th January, 1896, by Hon. G. E. Foster (second and concluding part presented 18th February, 1896). . . . . *Printed for both distribution and sessional papers.*
- 1a. Return of Treasury Board Overrulings since session of 1895 on appeal from the decision of the Auditor General *re* purchase of land for Manitoba Penitentiary. Presented 17th January, 1896, by Hon. G. E. Foster. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 2.

2. Public Accounts of Canada for the fiscal year ended 30th June, 1895. Presented 17th January, 1896, by Hon. G. E. Foster. 2a. Estimates for the fiscal year ended 30th June, 1897; presented 27th January. 2b. Supplementary Estimates for the year ending 30th June, 1896; presented 6th April, 1896. . . . . *Printed for both distribution and sessional papers.*
3. List of Shareholders in the Chartered Banks of Canada, as on the 31st December, 1895. Presented 13th April, 1896, by Hon. G. E. Foster. . . . . *Printed for both distribution and sessional papers.*
- 3a. Report of dividends remaining unpaid and unclaimed balances in the Chartered Banks of Canada, for five years and upwards, prior to 31st December, 1895. Presented 17th April, 1896, by Hon. G. E. Foster. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 3.

4. Report of the Superintendent of Insurance for the year ending 31st December, 1895. . . . . *Printed for both distribution and sessional papers.*
- 4a. Preliminary statements of the business of Life Insurance Companies in Canada, for the year ending 31st December, 1895. Presented 2nd March, 1896, by Hon. G. E. Foster. . . . . *Printed for both distribution and sessional papers.*
- 4b. Abstracts of Statements of Insurance Companies in Canada, for the year ended 31st December, 1895. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 4.

5. Report of the Department of Trade and Commerce, for the year ended 30th June, 1895. Presented 7th February, 1896, by Hon. W. B. Ives. . . . . *Printed for both distribution and sessional papers.*
- 5a. Reports of the High Commissioner in connection with the Department of Trade and Commerce. . . . . *Printed for both distribution and sessional papers.*
6. Tables of the Trade and Navigation of Canada for the fiscal year ended 30th June, 1895. Presented 24th January, 1896, by Hon. J. F. Wood. . . . . *Printed for both distribution and sessional papers.*

---



---

 CONTENTS OF VOLUME 5.

7. Inland Revenues of Canada. Excise, &c., for the fiscal year ended 30th June, 1895. Presented 9th January, 1896, by Hon. J. Costigan.....*Printed for both distribution and sessional papers.*
- 7a. Inland Revenues of Canada. Inspection of Weights and Measures and Gas, for the fiscal year ended 30th June, 1895. Presented 9th January, 1896, by Hon. J. Costigan.  
*Printed for both distribution and sessional papers.*
- 7b. Inland Revenues of Canada. Adulteration of Food, for the fiscal year ended 30th June, 1895. Presented 9th January, 1896, by Hon. J. Costigan.  
*Printed for both distribution and sessional papers.*
8. Report of the Minister of Agriculture for the calendar year 1895. Presented 21st February, 1896, by Hon. G. E. Foster.....*Printed for both distribution and sessional papers.*
- 8a. Report on Canadian Archives, 1895. Presented 24th March, 1896, by Hon. G. E. Foster.  
*Printed for both distribution and sessional papers.*
- 8b. Conference on the Copyright Question. Presented 23rd January, 1896, by Hon. W. H. Montague.  
*Printed for both distribution and sessional papers.*

## CONTENTS OF VOLUME 6.

- 8c. Report of the Director and Officers of the Experimental Farms, for the year 1895. Presented 6th April, 1896, by Hon. G. E. Foster.....*Printed for both distribution and sessional papers.*
- 8d. Criminal Statistics for the year 1895.....*Printed for both distribution and sessional papers.*

## CONTENTS OF VOLUME 7.

9. Annual Report of the Minister of Public Works, for the fiscal year ended 30th June, 1895. Presented 26th February, 1896, by Hon. J. A. Ouimet....*Printed for both distribution and sessional papers.*
10. Annual Report of the Department of Railways and Canals, for the fiscal year ended 30th June, 1895. Presented 6th February, 1896, by Hon. J. Haggart.  
*Printed for both distribution and sessional papers.*
- 10a. Railway Statistics of Canada, for the year ended 30th June, 1895. Presented 30th January, 1896, by Hon. J. Haggart.....*Printed in No. 10.*
- 10b. Canal Statistics for season of navigation, 1894. Presented 30th January, 1896, by Hon. J. Haggart.  
*Printed in No. 10.*

## CONTENTS OF VOLUME 8.

11. Annual Report of the Department of Marine and Fisheries (Marine) for the fiscal year ended 30th June, 1895. Presented 10th February, 1896, by Hon. J. Costigan.  
*Printed for both distribution and sessional papers.*
- 11a. Annual Report of the Department of Marine and Fisheries (Fisheries) for the fiscal year ended 30th June, 1895. Presented 28th February, 1896, by Hon. J. Costigan.  
*Printed for both distribution and sessional papers.*
- 11b. Report of an investigation into the Pilotage System at St. John, N.B. Presented 24th January, 1896, by Hon. J. Costigan.....*Printed for both distribution and sessional papers.*
- 11c. List of Shipping issued by the Department of Marine and Fisheries: being a list of vessels on the registry books of the Dominion of Canada on the 31st December, 1895.  
*Printed for both distribution and sessional papers.*

## CONTENTS OF VOLUME 9.

- 11d. Report of the Chairman of the Board of Steamboat Inspection, etc., for calendar year ended 31st December, 1895.....*Printed for both distribution and sessional papers.*
12. Report of the Postmaster General, for the year ended 30th June, 1895. Presented 23rd January, 1896, by Sir A. P. Caron.....*Printed for both distribution and sessional papers.*

---



---

 CONTENTS OF VOLUME 10.

- 13.** Annual Report of the Department of the Interior, for the year 1895. Presented 12th February, 1896, by Hon. T. M. Daly.....*Printed for both distribution and sessional papers.*
- 13a.** Summary Report of the Geological Survey Department, for the year 1895. Presented 13th March, 1896, by Hon. T. M. Daly.....*Printed for both distribution and sessional papers.*
- 14.** Annual Report of the Department of Indian Affairs, for the year ended 30th June, 1895. Presented 7th February, 1896, by Hon. T. M. Daly. ....*Printed for both distribution and sessional papers.*

## CONTENTS OF VOLUME 11.

- 15.** Report of the Commissioner of the North-West Mounted Police Force, 1895. Presented 23rd March, 1896, by Hon. T. M. Daly..... *Printed for both distribution and sessional papers.*
- 15a.** Supplementary Report of the Commissioner of the North-west Mounted Police Force, 1895. Presented 16th April, 1896, by Hon. T. M. Daly....*Printed for both distribution and sessional papers.*
- 16.** Report of the Secretary of State of Canada, for the year ended 31st December, 1895. Presented 23rd March, 1896, by Sir Charles Tupper... *Printed for both distribution and sessional papers.*
- 16a.** Civil Service List of Canada, 1895. Presented 17th January, 1896, by Hon. J. A. Ouimet.  
*Printed for both distribution and sessional papers.*
- 16b.** Annual Report of the Department of Public Printing and Stationery of Canada, for the year ending 30th June, 1895, with a partial report for services during six months ending 31st December, 1895. Presented 9th March, 1896, by Hon. Sir Charles Tupper.  
*Printed for both distribution and sessional papers.*
- 16c.** Report of the Board of Civil Service Examiners for the year ended 31st December, 1895. Presented 20th March, 1896, by Sir Charles Tupper . . . *Printed for both distribution and sessional papers.*
- 17.** Report of the Joint Librarians of Parliament for the year 1895. Presented 2nd January, 1896, by the Hon. The Speaker.....*Printed for sessional papers only.*
- 18.** Report of the Minister of Justice as to the Penitentiaries of Canada, for the year ended 30th June, 1895. Presented 7th February, 1896, by Hon. A. R. Dickey.  
*Printed for both distribution and sessional papers.*
- 19.** Report of the Department of Militia and Defence of Canada, for the year ended 30th June, 1895. Presented 30th January, 1896, by Hon. A. R. Dickey.  
*Printed for both distribution and sessional papers.*
- 20.** Statement showing the bounty paid on steel billets, manufactured in Canada, from 31st March, 1895, to 31st December, 1895. Presented 17th January, 1896, by Hon. J. F. Wood.  
*Not printed.*
- 21.** Statement showing the bounty paid on pig iron manufactured in Canada, from 4th April, 1895, to 9th January, 1896, and quantity produced. Presented 17th January, 1896, by Hon. J. F. Wood.  
*Not printed.*
- 22.** Statement of Governor General's Warrants issued on account of the fiscal year 1895-96, made as directed by the Consolidated Revenue and Audit Act. Presented 17th January, 1896, by Hon. G. E. Foster.....*Not printed.*
- 23.** Statement of all superannuations and retiring allowances in the civil service during the year ended 31st December, 1895, giving name, rank, salary, service, allowance and cause of retirement of each person superannuated; also whether vacancy filled by promotion or new appointment, and salary of any new appointee. Presented 17th January, 1896, by Hon. G. E. Foster.. *Not printed.*
- 24.** Statement of expenditure on account of miscellaneous unforeseen expenses, from 1st July, 1895, to 2nd January, 1896. Presented 17th January, 1896, by Hon. G. E. Foster.....*Not printed.*
- 25.** Return to an order of the House of Commons, dated 3rd February, 1896, for a return showing the names of the operators and location of mills in which corn was ground for human food during the year ending 30th June, 1895. The number of bushels ground by each, and the gross amount of rebate made to each, and the amount of rebate yet due or claimed by each and not paid, if any. Presented 20th February, 1896.—*Mr. McMullen*.....*Not printed.*
- 26.** List of public officers to whom commissions have issued under chapter 19 of the Revised Statutes of Canada, during the year 1895. Presented 17th January, 1896, by Hon. J. A. Ouimet.  
*Printed in No. 16.*

---



---

 CONTENTS OF VOLUME 11—*Continued.*

27. Report of the Commissioner of Dominion Police, for the year 1895, under Revised Statutes of Canada, chapter 184, section 5. Presented 17th January, 1896, by Hon. T. M. Daly. . . . *Not printed.*
28. Return to an order of the House of Commons, dated 8th July, 1895, for a copy of all memorials, petitions and other documents from the Indians of St. Peter's Reserve, Manitoba, and of all correspondence in relation thereto, since 1st January, 1892. Presented 20th January, 1896.—*Mr. Laurier* . . . . . *Not printed.*
29. Copy of an order in council of the 8th January, 1896, continuing for the current year the issue of licenses to United States fishing vessels to enter any ports on the Atlantic coast for the purchase of bait, etc. Presented 20th January, 1896, by Hon. J. Costigan . . . . . *Not printed.*
30. Statement in reference to fishing bounty payments for 1894-95, required by chapter 96 of the Revised Statutes of Canada. Presented 20th January, 1896, by Hon. J. Costigan . . . . . *Not printed.*
31. Return of orders in council which have been published in the *Canada Gazette* and in the *British Columbia Gazette*, in accordance with the provisions of section 38 of the regulations for the survey, administration, disposal and management of Dominion lands within the 40-mile railway belt in the province of British Columbia. Presented 21st January, 1896, by Hon. T. M. Daly . . . . . *Not printed.*
- 31a. Return of orders in council which have been published in the *Canada Gazette*, in accordance with the provisions of clause 91 of the Dominion Lands Act, chapter 54, Revised Statutes of Canada. Presented 21st January, 1896, by Hon. T. M. Daly . . . . . *Not printed.*
32. Return under resolution of the 20th February, 1882, in so far as the same is furnished by the department of the interior, respecting the Canadian Pacific Railway Company. Presented 22nd January, 1896, by Hon. T. M. Daly . . . . . *Not printed.*
- 32a. List of all lands sold by the Canadian Pacific Railway Company, from the 1st October, 1894, to the 1st October, 1895. Presented 10th February, 1896, by Hon. T. M. Daly . . . . . *Not printed.*
33. Return to an order of the House of Commons, dated 10th June, 1895, for a return showing: 1. Number of manufacturing industries in the city of Chatham, specifying the name of each and name of the proprietor. 2. Number of hands employed in each factory. 3. The value of the output of each factory. 4. Amount of capital invested in each factory. 5. Total wages paid by each factory. 6. Value of raw material in each factory. Presented 23rd January, 1896.—*Mr. Campbell* . . . . . *Not printed.*
- 33a. Return to an order of the House of Commons, dated 10th June, 1895, for a return showing: 1. Number of manufacturing industries in the town of Wingham, specifying the name of each and name of proprietor. 2. Number of hands employed in each factory. 3. The value of the output of each factory. 4. Amount of capital invested in each factory. 5. Total wages paid by each factory. 6. Value of raw material in each factory. Presented 23rd January, 1896.—*Mr. McDonald (Huron)* . . . . . *Not printed.*
34. Detailed statement of all bonds and securities registered in the department of the secretary of state for Canada, since last return, 1895, submitted to the parliament of Canada under section 23, chapter 19, of the Revised Statutes of Canada. Presented 23rd January, 1896, by Hon. J. A. Ouimet . . . . . *Not printed.*
35. Return to an order of the House of Commons, dated 3rd June, 1895, for copies of the contract made between the postmaster general and Mr. Jos. Lamontagne, on 1st July, 1894, for carrying the mail between Lake Etchemin and St. Rose de Watford; also of all documents, correspondence, tenders and reports, other than confidential, in relation to the cancelling of the said contract, and of the new contract subsequently made by the government and of the tenders that preceded it. Presented 24th January, 1896.—*Mr. Vaillancourt* . . . . . *Not printed.*
- 35a. Return to an order of the House of Commons, dated 3rd June, 1895, for a return showing all correspondence, reports, tenders received and contracts entered into for carrying mail matter between Battleford and Saskatoon, in the North-west Territories, during the past three years. Presented 24th January, 1896.—*Mr. Martin* . . . . . *Not printed.*
- 35b. Return to an order of the House of Commons, dated 3rd June, 1895, for copies of all petitions, letters and papers with reference to a daily mail service between Matane, in the county of Rimouski, and Ste. Anne des Monts, in the county of Gaspé. Presented 24th January, 1896.—*Mr. Joncas* . . . . . *Not printed.*



---



---

 CONTENTS OF VOLUME 11—*Continued.*

- 35c.** Return to an order of the House of Commons, dated 25th March, 1896, for copy of mail contracts with the Canadian Pacific Railway from Winnipeg to Pilot Mound, and points west of same. Presented 13th April, 1896.—*Sir Richard Cartwright*..... *Not printed.*
- 35d.** Return to an order of the House of Commons, dated 17th February, 1896, for copies of tenders received during the year 1895 for the conveyance of the mails between the 108 Mile House, British Columbia, and Horsefly, with the amounts in each case. Any correspondence had between the post office inspector (Mr. Fletcher) or the department, and the members representing Cariboo or Yale in relation to the conveyance of the mail over the said route. The copy of the contract now in force, its amount, and the party with whom such contract has been made. Copies of the tenders received during the year 1895 for the conveyance of the mails between the 150 Mile House and Keithley Creek, showing to whom was the contract awarded and for what amount, and whether such contract was transferred to any one, and if so, to whom, and on what terms. Presented 17th April, 1896.—*Mr. McMullen*..... *Not printed.*
- 35e.** Return to an address of the House of Commons to his excellency the Governor General, dated 9th March, 1896, for copies of all correspondence between the Canadian Pacific Railway Company and the government relating to claims for an increase of the amount paid to that company for the carriage of mail matter, and for copies of any orders in council or departmental regulations respecting such claims. Presented 17th April, 1896.—*Mr. Borden*..... *Not printed.*
- 36.** Return to an order of the House of Commons, dated 26th April, 1895, for a return showing : 1. The names of all superannuated officers on the superannuated list on the 1st day of January, 1895. 2. The date of their appointment as permanent civil servants. 3. The amount of salary at time of appointment. 4. The number of years in the service. 5. The amount of salary at time of superannuation. 6. The date of their superannuation and number of years added to time of service, if any. 7. The amount of annual retiring allowance granted. 8. The gross amount paid into the fund by each retired officer on the list on the 1st of January, 1895. 9. The gross amount drawn by each superannuated officer on the superannuated list up to the 1st of January, 1895. 10. The age of each superannuated officer on the list on the 1st of January, 1895, at the date of his superannuation. 11. The names of all persons who have been on the superannuation list since the act came into force and have died before January 1st, 1895, and the information concerning each which is asked for in the preceding nine paragraphs with respect to those mentioned in paragraph one. Presented 27th January, 1896.—*Mr. McMullen*..... *Not printed.*
- 37.** Statement in pursuance of section 17 of the Civil Service Insurance Act, for the year ending 30th June, 1895. Presented 28th January, 1896, by Hon. G. E. Foster..... *Not printed.*
- 38.** Return (in part) to an address of the House of Commons to his excellency the Governor General, dated 28th January, 1896, for a copy of an order in council relating to the quarantine and transit through Canada of cattle from the United States, especially with reference to the port of St. John, New Brunswick, and of all other orders in council and departmental or other regulations applicable to the transit of cattle from the United States through Canada, and a statement showing what provision has been made for the transit of such cattle being carried out according to the requirements of such orders in council and regulations; also statement showing what numbers of American cattle, if any, have already been shipped via St. John under the terms of the order in council. Presented 28th January, 1896.—*Mr. Foster* and *Mr. Mulock*..... *Not printed.*
- 38a.** Supplementary return to No. 38. Presented 17th February, 1896.—*Mr. Foster* and *Mr. Mulock*.  
*Not printed.*
- 39.** Copy of further correspondence between the government of Canada and the government of the province of Manitoba, respecting the Manitoba school question. Presented 30th January, 1896, by Hon. G. E. Foster..... *Printed for both distribution and sessional papers.*
- 39a.** Return to an address of the House of Commons to his excellency the Governor General, dated 29th January, 1896, for a return of all orders in council and official correspondence, and all other documents, not already laid on the table of this house, in reference to the Manitoba school question. Presented 6th February, 1896.—*Mr. LaRivière*... *Printed for both distribution and sessional papers.*
- 39aa.** Copies of papers with reference to the sending of a deputation to Winnipeg to confer with the Manitoba government, regarding the Manitoba School Law. Presented 26th March, 1896, by Sir Charles Tupper..... *Printed for both distribution and sessional papers.*

---



---

 CONTENTS OF VOLUME 11—*Continued.*

- 39b. Return to an address of the House of Commons to his excellency the Governor General, dated 16th March, 1896, for copy of the report made by his honour the lieutenant governor of the North-west Territories to his excellency the governor general respecting the bill intituled: "An ordinance to amend and consolidate, as amended, the ordinances respecting schools," passed by the legislative assembly at its last session, and which was reserved for the assent of his excellency; any order in council or report made in respect thereof and the said bill. Presented 26th March, 1896.—*Mr. McCarthy* . . . . . *Printed for both distribution and sessional papers.*
- 39c. Report of the commissioners appointed to confer with the government of Manitoba on the subject of the schools in that province. Also extracts of reports of the committee of the honourable the privy council of the 17th and 27th March, 1896, with reference to the appointment of a commission to confer with the government of the province of Manitoba on the subject of the schools in that province. Presented 6th April, 1896, by Sir Charles Tupper.  
*Printed for both distribution and sessional papers.*
40. Return to an address of the House of Commons to his excellency the Governor General, dated 8th July, 1895, for copies of all petitions, correspondence, documents, or other papers from the electors of the riding of South Renfrew, or any one or more of them, or any other person, addressed to the governor general or the minister of railways, in reference to the "closing of the railway station at Barry's Bay, a station on the Ottawa, Arnprior and Parry Sound Railway, in the county of Renfrew, and for papers or correspondence, as above, containing complaints of any persons against the said railway company, for inconvenience and business losses occasioned by the closing of said railway station, and for papers or correspondence, as above, complaining against the action of said railway company, so largely assisted by government moneys, for inconveniencing and injuring public business, in attempting to coerce an individual into giving the company land or privileges which the company could not obtain by action at law. Presented 6th February, 1896.—*Mr. Casey.*  
*Not printed.*
41. Return to an address of the House of Commons to his excellency the Governor General, dated 27th January, 1896, for copies of correspondence by letter or telegram between the government and Sir Charles Tupper, Bart., concerning his present visit to Canada. Presented 7th February, 1896.—*Mr. Casey.* . . . . . *Not printed.*
42. Return to an address of the House of Commons to his excellency the Governor General, dated 29th January, 1896, for copies of all petitions, applications, letters, etc., asking for a commutation of the sentence of death recorded against Valentine Shortis, into imprisonment for life, and of all letters and memorials asking that the law be allowed to take its course; also the report of Mr. Justice Mathieu, and the report of the Minister of Justice, and any decision, order or warrant dealing with the said case. Also a statement showing whether any petitions for commutation of the death sentence were submitted to council, and, if so, what decision (if any) was arrived at in regard thereto. Also for copies of any correspondence between his excellency the governor general and the colonial secretary, whether by cablegram or otherwise, on the same subject. Presented 11th February, 1896.—*Messrs. Bergeron, Mulock and Davies.*  
*Printed for distribution only.*
43. Report of the Board of Visitors for the Royal Military College, for the year 1895. Presented 12th February, 1896, by Hon. A. R. Dickey . . . . . *Printed for distribution only.*
- 43a. Report of Mr. Sandford Fleming, C.M.G., a member of the Board of Visitors of the Royal Military College. Presented 25th March, 1896, by Sir Adolphe Caron . . . . . *Printed for distribution only.*
- 43b. Letters from the Commandant of the Royal Military College, submitting remarks on the Report of the Board of Visitors of said College, and also on the Report of Mr. Sandford Fleming, C.M.G., a member of said board. Presented 25th March, 1896, by Sir Adolphe Caron.  
*Printed for distribution only.*
- 43c. Letter and report from the general officer commanding the Canadian militia, in reference to the Royal Military College at Kingston. Presented 26th March, 1896, by Sir Adolphe Caron.  
*Printed for distribution only.*
44. Return to an address of the House of Commons to his excellency the Governor General, dated 3rd February, 1896, for copies of all orders in council and correspondence relating to the appointment of the Honourable E. G. Prior, and of the Honourable John F. Wood, to the privy council of Canada; and copies of the commissions or instruments appointing them to the privy council, and appointing them also to the respective offices which they now hold in the administration. Presented 12th February, 1896.—*Mr. Laurier* . . . . . *Not printed.*

---



---

 CONTENTS OF VOLUME 11—*Continued.*

45. Return to an order of the House of Commons, dated 3rd February, 1896, for a statement of the total expenditure in connection with the central experimental farm at Ottawa, up to the 1st day of January, 1896: The price paid for the land. The total cost of buildings, and labour in making permanent improvements, and the total cost of other labour on the farm. The amounts paid for manure and fertilizers. The amount paid for live stock. The total amount paid for machinery and implements. The amount paid for harness. The value of live stock on the farm, 1st January, 1896. The total revenue from sales of live stock, butter, cheese and produce of the farm, to 1st January, 1896. Presented 17th February, 1896.—*Mr. McMillan*.....*Not printed.*
46. Return to an address of the House of Commons to his excellency the Governor General, dated 27th January, 1896, for a statement showing the names of all persons appointed to any positions in connection with the customs at Toronto since 1st July, 1891, with dates of appointments and salaries of such appointees. Presented 17th February, 1896.—*Mr. McMillan*..... *Not printed.*
47. Return to an address of the House of Commons to his excellency the Governor General, dated 10th February, 1896, for copies of the order in council appointing the Hon. Désiré Girouard one of the judges of the supreme court of Canada. Presented 17th February, 1896.—*Mr. Tarte*.  
*Not printed.*
48. Return to an address of the House of Commons to his excellency the Governor General, dated 27th January, 1896, for copies of all orders in council, instructions from the government or any department, and other documents relating to the appointment of a high commissioner in London, or the nature of his duties, or his discharge of those duties, which have not already been laid before this house. Presented 17th February, 1896.—*Mr. Casey*.....*Not printed.*
49. Return to an address of the House of Commons to his excellency the Governor General, dated 10th February, 1896, for copies of orders in council in relation to appointments of senators, made since 1st January, 1896. Presented 20th February, 1896.—*Mr. Tarte*.....*Not printed.*
50. Return to an order of the House of Commons, dated 10th June, 1895, for copies of all papers and correspondence connected with the part ownership of the Moose Jaw town site by the government of Canada, including a statement of the amount of money received by the town site trustees, the amount received by the government of the Dominion, the number of lots still held by the Dominion government, and the amount of taxes paid annually by the government since Moose Jaw was erected into a municipality. Presented 24th February, 1896.—*Mr. Davin*.  
*Not printed.*
51. Return to an order of the House of Commons, dated 3rd February, 1896, for copies of all correspondence with regard to the granting of a license to manufacture and sell beer in the town of Neepawa, in Manitoba. Also copies of all petitions from residents of said town protesting against said license. Presented 24th February, 1896.—*Mr. Martin*.....*Not printed.*
52. Return to an order of the House of Commons, dated 29th January, 1896, for a return of: 1. All fees received by the government under the provisions of the Act commonly known as the McCarthy Act, from the several municipal corporations or from parties applying for licenses under that act, in the electoral district of Provencher, in the province of Manitoba. 2. A list of unpaid claims and amount thereof in connection with the said act in the same electoral district. Presented 24th February, 1896.—*Mr. LaRivière*.....*Not printed.*
53. Return to an address of the House of Commons to his excellency the Governor General, dated 10th February, 1896, for copies of all reports to council and orders in council, judge's report and other papers and correspondence respecting the release of Charles Chamberlain from confinement at Stony Mountain penitentiary in Manitoba on a conviction for perjury in connection with the last Dominion election in the city of Winnipeg. Also copies of all letters, petitions or other communications to the government, or any member or department, or to his excellency; and of all letters by or on behalf of any member of the government or any department, in reference to commutation of Chamberlain's term of imprisonment. Presented 24th February, 1896.—*Mr. Martin and Mr. Mulock*.....*Not printed.*
54. Return to an order of the House of Commons, dated 10th February, 1896, for a full return of the census of the North-west Territories recently taken by the mounted police, showing the number of male and female inhabitants in each division and showing boundaries of divisions. Presented 27th February, 1896.—*Mr. Martin*.....*Not printed.*

CONTENTS OF VOLUME 11—*Continued.*

55. Return to an order of the House of Commons, dated 10th February, 1896, for a return showing the amount of money paid to each of the several parties who have received a bounty during the year 1895 from the appropriation to encourage the production of the beet root. Presented 4th March, 1896.—*Mr. Mills (Bothwell)*.....*Not printed.*
56. Return to an address of the House of Commons to his excellency the Governor General, dated 2nd March, 1896, for a copy of the contract entered into between the Minister of Trade and Commerce on behalf of Her Majesty and the trustees for the bondholders of the Canada Shipping Company, for a steamship service between St. John, New Brunswick, and Liverpool, Great Britain. Presented 6th March, 1896.—*Mr. Hazen*.....*Not printed.*
57. Return to an order of the House of Commons, dated 26th February, 1896, for a return showing the number of vessels that passed through the Chambly canal in each of the years 1892, 1893, 1894 and 1895; the said return to show, separately, the number of vessels loaded with coal and those loaded with wood, as well as those bound upwards and those bound downwards. Presented 9th March, 1896.—*Mr. Langelier*.....*Not printed.*
- 57a. Return to an order of the House of Commons, dated 17th February, 1896, for a statement showing amount of each claim made by the government for damages alleged to have been occasioned by vessels navigating the new Welland canal from the date of its first opening up to the 31st December, 1895, giving names of the respective vessels and owners thereof; the nature of the damages and how each claim was settled, whether by being paid in whole or in part or not at all, and if any such claims are still unsettled. Statement showing amount of each unsettled claim, and name of each vessel (with names of owners) in respect of which any such unsettled claim exists. Presented 9th March, 1896.—*Mr. Gibson*.....*Not printed.*
58. Return to an order of the House of Commons, dated 17th February, 1896, for copies of all letters, petitions, correspondence or documents of any nature whatsoever, asking the government to take the necessary steps to secure the ownership of the Baie des Chaleurs Railway, with a view to making it a branch of the Intercolonial Railway. Presented 9th March, 1896.—*Mr. Joncas*.....*Not printed.*
59. Return to an order of the House of Commons, dated 26th February, 1896, for copies of all correspondence, papers and documents relating to the sale or chartering of the steamer "Alert." Presented 9th March, 1896.—*Mr. Langelier*.....*Not printed.*
60. Return to an order of the House of Commons, dated 10th February, 1896, for a return showing the amount of corn and other grain imported by each of the distillers for the year 1895. The total amount of corn imported required for human food. Presented 9th March, 1896.—*Mr. Mills (Bothwell)*.....*Not printed.*
61. Report upon the Sweating System in Canada. Presented 13th March, 1896, by Sir Charles Tupper.  
*Printed for both distribution and sessional papers.*
- 61a. Supplementary return to No. 61. Presented 24th March, 1896.  
*Printed for both distribution and sessional papers.*
62. Return to an address of the Senate to his excellency the Governor General, dated 2nd May, 1895, for a return of the number of bushels of wheat delivered to the elevators at Fort William and Port Arthur, and the grade; the number of bushels loaded on vessels, and the grade; the nationality and destination of the vessels carrying the grain; also a copy of the conditions of the grade as fixed by the board of inspectors assembled for the purpose of fixing the grade for 1894. Presented 25th February, 1896.—*Hon. Mr. Boulton*.....*Not printed.*
63. Return to an address of the Senate to his excellency the Governor General, dated 11th February, 1896, for a return showing the names of all civil service employees, belonging to the secretary of state department and to the department of agriculture, who have been superannuated since the 1st day of July, 1894; also giving their age, the number of years they have been in the service, their salary and amount of superannuation allowance granted in each case. In the case of employees not having reached the full age of sixty years, or who had not completed thirty-five years of service, the reasons for their superannuation and the report of the treasury board in each such case. Also the names, ages and years of service of all employees belonging to the aforesaid departments to whom notice has been given of the intention to dismiss or superannuate them. Presented 3rd March, 1896.—*Hon. Mr. Poirier*.....*Not printed.*

---



---

 CONTENTS OF VOLUME 11—*Continued.*

64. Return to an address of the Senate to his excellency the Governor General, dated 10th February, 1896, for copies of all maps, reports, estimates, etc., regarding the Ottawa canal, and especially those of T. C. Clarke and Walter Shanly; also copies of all correspondence, petitions, resolutions, reports and other papers which have been filed with the honourable the minister of railways and canals, regarding and in favour of the Montreal, Ottawa and Georgian Bay canal. Presented 13th March, 1896.—*Hon. Mr. Clemow*.....*Not printed.*
65. Return to an address of the Senate to his excellency the Governor General, dated 13th June, 1895, for copies of all correspondence and telegrams that have passed between the postmaster general, or any member of the government, and the British Columbia board of trade, the city council of Victoria, the members representing the city district of Victoria in the house of commons, the postmaster of Victoria, or any one else, from the 1st of January, 1894, to the 1st May, 1895, relative to the "provisional allowance," and the withholding of the same from the post office clerks and letter carriers of the city of Victoria, British Columbia. Presented 19th March, 1896—*Hon. Mr. McInnes (Victoria)*.....*Not printed.*
66. Return to an order of the House of Commons, dated 16th March, 1896 for a copy of the list of electors for the constituency of Yale and Cariboo. Presented 23rd March, 1895.—*Mr. Martin*.....*Not printed.*
67. Return to an order of the House of Commons, dated 27th January, 1896, for a return showing: The number of employees on the Intercolonial Railway on the 30th June last, distinguishing between temporary and permanent employees. The number of miles of railway operated at same date. The number of stations and stationmasters. The number of cars put on the line during the fiscal year ending 30th June, 1895, and charged to working expenses. The number of engines put on the line and charged to working expenses. The number of cars put on and charged to capital account. The number of engines put on and charged to capital account. The number of tons of new rails put down and charged to working expenses. The number of tons put down and charged to capital account. The number of ties put down and the number charged to working expenses and capital account respectively. The number of bridges repaired or put in and charged to capital account and the number put in or repaired and charged to working expenses. The number of overhead bridges renewed and charged to working expenses and the number to capital account. The amount spent on fencing and charged to working expenses and the amount charged to capital account. The total amount spent on new buildings of any kind along the line, and the portion charged to capital account and working expenses respectively. The total amount spent in repairs of buildings and the amount charged therefor to capital account and working expenses respectively. The amount spent on drains, ditches and culverts along the line, over and above what was done by section-men, and the portion thereof charged to working expenses and the portion to capital account. Presented 23rd March, 1896.—*Mr. McMullen and Mr. Davies*.....*Not printed.*
68. Return to an order of the House of Commons, dated 8th July, 1895, for: 1. Return showing the names of the several railways in the Dominion to which a cash subsidy was paid. 2. The province in which said railway is located. 3. The number of miles subsidized. 4. The number built. 5. The amount per mile granted and the gross amount paid. 6. The number of acres of land granted per mile, and the gross number of acres given or now due to each company. 7. The gross amount of cash subsidy given to railways in each province. 8. The gross number of acres of land granted in each province, and the grand total of money and land given to railways in the Dominion. Presented 23rd March, 1896.—*Mr. McMullen*.....*Not printed.*
- 68a. Supplementary return to No. 68. Presented 26th March, 1896.—*Mr. McMullen*.....*Not printed.*
69. Return to an order of the House of Commons, dated 9th March, 1896, for copies of all papers, correspondence and reports relating to the claim of Dr. Wall, of Emerald, Prince Edward Island, for damages for alleged injuries received by him on the Prince Edward Island Railway. Presented 23rd March, 1896.—*Mr. Davies*.....*Not printed.*
70. Return to an order of the House of Commons, dated 9th March, 1896, for a detailed statement of the cost of the Freight Rates Commission. Presented 23rd March, 1896.—*Mr. Martin*.....*Not printed.*
71. Detailed statement of correspondence between the high commissioner's office in London, and the privy council office, 1880 to 1896. Presented 23rd March, 1896, by Sir Charles Tupper.....*Not printed.*

---



---

 CONTENTS OF VOLUME 11—*Continued.*

- 71a. Detailed memorandum showing the nominal value and actual cost of the Canadian silver and copper coinage, procured through the high commissioner, between the years 1883 and 1895, inclusive, and also the saving effected. Presented 24th March, 1896, by Sir Charles Tupper. . . . . *Not printed.*
72. Statement of the affairs of the British Canadian Loan and Investment Company, on the 31st December, 1895. Presented 23rd March, 1896, by the Hon. The Speaker . . . . . *Not printed.*
73. General statements and returns of baptisms, marriages and burials in the districts of Montmagny and Ottawa, for the year 1895. Presented 23rd March, 1896, by the Hon. The Speaker.  
*Not printed.*
74. Copy of the Joint Report of the Commissioners appointed under Article I of the Convention between the United States of America and the United Kingdom of Great Britain and Ireland, for the delimitation of the boundary line between the United States and the Dominion of Canada, dividing Alaska from British Columbia, together with an approved minute of council thereon of 25th February, 1896. Presented 25th March, 1896, by Sir Charles Tupper.  
*Printed for both distribution and sessional papers.*
75. Return to an order of the House of Commons, dated 27th January, 1896, for copies of all correspondence in connection with the territorial exhibition held last summer at Regina, and all papers showing the connection of the lieutenant governor of the Territories with the same, and detailed accounts of receipts and expenditures of said exhibition; also amount still owing on account of same. Presented 17th April, 1896.—*Mr. Martin* . . . . . *Not printed.*
76. Return to an address of the House of Commons to his excellency the Governor General, dated 9th March, 1896, for copies of all contracts and correspondence between George Goodwin and the department of railways and canals, or any other department of the government, in connection with contracts 4, 5, 6, 7 and 12 on the Soulanges canal. Also copies of all correspondence between the department of railways and canals and the department of justice in connection with said contracts. Also copies of all orders in council bearing upon the claims of George Goodwin, in connection with such contracts. Also copies of the reports to the department of railways and canals, or to any other department, made by the government engineer in charge of said works, bearing upon the work performed by contractor George Goodwin, and bearing upon said contractor Goodwin's claim against the government for extra compensation in connection with water-tight embankment, or in connection with any other claim he has made relating to his contracts on the Soulanges canal works. Presented 27th March, 1896.—*Mr. Davies*. . . . . *Not printed.*
77. Return to an order of the House of Commons, dated 3rd February, 1896, for a copy of the report of the engineer appointed to examine and report on the state of the breakwater at Tignish, Prince Edward Island, during the year 1895. Presented 2nd April, 1896.—*Mr. Perry*. . . . . *Not printed.*
- 77a. Return to an order of the House of Commons, dated 26th February, 1896, for a statement showing the amount expended by the Dominion government on each of the following breakwaters, piers and wharfs in Prince county, Prince Edward Island, from 1890 up to date:—1. Malpeque breakwater. 2. Cape Traverse breakwater. 3. McGee's wharf, Egmont Bay. 4. Higgins wharf. 5. Brea breakwater. 6. West Point wharf. 7. Mimingash breakwater. 8. Tignish breakwater. The work let by tender, the amount of each contract, the names of contractors, work done by day's work, names of parties in charge, and name of inspector in each case. Presented 2nd April, 1896.—*Mr. Perry*. . . . . *Not printed.*
78. Return to an order of the House of Commons, dated 16th March, 1896, for copies of all correspondence with regard to improvements of St. Andrew's rapids, not already brought down. Presented 2nd April, 1896.—*Mr. Martin*. . . . . *Not printed.*
79. Return to an order of the House of Commons, dated 26th February, 1896, for copies of all petitions, letters, correspondence or documents of any nature whatsoever, asking the government to construct wharfs or piers at Paspébiac, in the county of Bonaventure, with a view to making a harbour of refuge at that place. Presented 2nd April, 1896.—*Mr. Joncas* . . . . . *Not printed.*
80. Return to an address of the Senate to his excellency the Governor General, dated 5th March, 1896, for copies of all maps, reports, etc., regarding what has been styled the "guard pier," now in course of construction at Montreal; also copies of all correspondence, petitions, resolutions, reports, protests and other papers regarding and in favour of, and opposed to, the said structure, and especially the views thereon expressed by the medical faculty of the city of Montreal, the board of health of the province of Quebec, and the health board of the city of Montreal. Presented 19th March 1896.—*Hon. Sir William Hingston*. . . . . *Not printed.*

---



---

 CONTENTS OF VOLUME 11—*Continued.*

- 81.** Return to an order of the House of Commons, dated 16th March, 1896, for a return showing the name of each licensee to whom fishing licenses were granted by David Sharp, of Port Dover, Ontario, fishery overseer, for the years 1894 and 1895, together with the amount received for each license so granted in the years 1894 and 1895 aforesaid. Presented 13th April 1896.—*Mr. Charlton.*  
*Not printed.*
- 82.** Interim report on the effect of the Chicago drainage channel on the levels of the great lakes. Presented 13th April, 1896, by Hon. J. Costigan.  
*Printed for both distribution and sessional papers.*
- 83.** Return to an order of the House of Commons, dated 16th March, 1896, for copies of all papers relating to the sale of lots numbers fifteen and sixteen, on the west side of Cayuga street, in the village of Cayuga, in the province of Ontario, to W. A. Mitchell, or any other person, including copy of petition and signatures, asking for the sale of said lots; also information as to whether at any time in the past, application has been made to the government for permission to use the said lots as a burial place, and whether permission by the government or any official of the government, was given for the use of the said lots for such purpose; also whether the government at the time the said lots were sold was aware that they had been used as a burial place, and that several hundred bodies were buried there. Presented 13th April, 1896.—*Mr. Charlton* . . . *Not printed.*
- 84.** Return to an order of the House of Commons, dated 25th March, 1896, for copies of all correspondence, papers, documents, telegrams, etc., from steamship and shipowners and agents, marine underwriters, manufacturers, merchants and others, of the city of Montreal and elsewhere, in the hands of the government, in reference to a harbour of refuge in Little Metis Bay. Presented 13th April, 1896.—*Mr. McShane.* . . . . . *Not printed.*
- 84a.** Supplementary return to No. 84. Presented 22nd April, 1896.—*Mr. McShane.* . . . . . *Not printed.*
- 85.** Return to an order of the House of Commons, dated 3rd June, 1895, for a return showing the amount paid in each department of the government in the inside service at Ottawa for temporary clerks during the several years from 1st July, 1880, to 30th June, 1894, separately in each department for each year. Presented 20th April, 1896.—*Mr. McMullen* . . . . . *Not printed.*
- 86.** Return to an order of the House of Commons, dated 25th March, 1896, for copies of all papers and correspondence between E. Adams, formerly inspector of boilers, etc., at Kingston, and now chairman of board of steamboat inspectors, and the department of marine and fisheries, relative to any complaints by said Adams against T. Donnelly, hull inspector at Kingston, or relative to his discharge of the duties of that office. Presented 20th April, 1896.—*Mr. Borden* . . . . . *Not printed.*
- 87.** Return to an order of the House of Commons, dated 1st April, 1896, for copies of all correspondence between the department of the interior and D. J. O'Donoghue, secretary legislative committee, trades and labour council, Toronto, concerning the alleged misquotation in the report of the committee on immigration, 1895, of a certain letter relating to the success of Dr. Barnardo's boys as settlers in Canada. Presented 22nd April, 1896.—*Mr. Casey.* . . . . . *Not printed.*
- 88.** Return to an address of the House of Commons to his excellency the Governor General, dated 3rd June, 1895, for a return showing: 1. The names of the several railways in the Dominion to which Dominion aid has been granted, except the Canadian Pacific main line. 2. The province within which the said railway in whole or in part is located, and if in two or more provinces, the number of miles in each. 3. The county or counties through which the said lines run in each province. 4. The amount of money actually paid to each up to the 1st January, 1895. 5. The railways built in the Dominion by the Dominion since confederation, excepting the main line of the Intercolonial and main line of the Canadian Pacific. 6. The province within which built. 7. The entire cost of each line built or assisted by the Dominion in each province, including equipment. 8. The entire sum spent up to the 1st January, 1895, last, on the construction of the Dominion roads in each province, except the Intercolonial Railway and Canadian Pacific Railway main lines. Presented 22nd April, 1896.—*Mr. Davies* . . . . . *Not printed.*
- 89.** Return to an order of the House of Commons, dated 10th February, 1896, for a statement of the sums appropriated by parliament for improving the navigation of the St. John river, New Brunswick, and its tributaries, during the years from 1887 to 1895, inclusive; also statement as to what amount of such appropriation was annually expended in such improvements in said river and its tributaries during the same period, together with memorandum as to what points in said river

---



---

 CONTENTS OF VOLUME 11—*Concluded.*

- these sums were expended, by whom the same was expended, and the character of the work done in each case. Statement as to what portion of the above appropriation was expended at Gibson's Creek, in the county of Carleton; the amount spent, and the nature of the work done. Presented 22nd April, 1896.—*Mr. Colter*.....*Not printed.*
90. Return to an order of the House of Commons, dated 1st April, 1896, for copies of all petitions, letters and correspondence in favour of an indemnity for Joseph Beliveau, for injuries incurred by him while working under the public works department at Sorel. Presented 22nd April, 1896.—*Mr. Bruneau*.....*Not printed.*
91. Return to an order of the House of Commons, dated 25th March, 1896, for a statement giving full particulars of the expenditure of \$5,000 on Port Stanley harbour four years ago, including pay-lists, and detailed account of all payments in connection with such expenditure. Presented 22nd April, 1896.—*Mr. Casey*.....*Not printed.*
92. Return to an address of the House of Commons to his excellency the Governor General, dated 16th March, 1896, for a copy of the report of the mechanical engineers of the department of public works, also the order in council passed in relation thereto, and all other correspondence and papers with reference to the unpaid claims of the Ottawa Gas Company, for gas consumed in the parliament buildings of this city, during the years 1866 and 1867. Presented 22nd April, 1896.—*Sir James Grant*.....*Not printed.*



CANADA

REPORT

OF THE

MINISTER OF PUBLIC WORKS

ON THE WORKS UNDER HIS CONTROL

FOR THE FISCAL YEAR ENDED 30<sup>TH</sup> JUNE, 1895

Submitted in accordance with the Provisions of Chapter 36, Section 37, of the Revised Statutes of Canada

*PRINTED BY ORDER OF PARLIAMENT*



OTTAWA

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

1896

[No. 9—1896.] *Price 20 cents.*



## Department of Public Works.

*To the Right Honourable Sir John Campbell Hamilton-Gordon, Earl of Aberdeen ;  
Viscount Formartine, Baron Haddo, Methlic, Tarves and Kellie, in the  
Peerage of Scotland ; Viscount Gordon of Aberdeen, in the Peerage of the  
United Kingdom ; Baronet of Nova Scotia, &c., &c., Governor General of  
Canada.*

MAY IT PLEASE YOUR EXCELLENCY :

The undersigned has the honour to lay before Your Excellency the Report of the Department of Public Works, for the fiscal year ended 30th June, 1895.

Respectfully submitted,

J. ALD. OUMET,

*Minister of Public Works.*

OTTAWA, 12th February, 1896.



Department of Public Works.

ALPHABETICAL INDEX

TO

REPORT AND APPENDICES.

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Acts of Parliament.....	Relating to public works.....	vii	179
Agassiz.....	Experimental Farm.....		7, 13
Agent and Contingencies, B. C.....	Maintenance.....		21
Alexandria.....	Reformatory.....		4
Allison, John C.....	Gratuity to widow.....		2
Almonte.....	Post office, &c.....	xvii	4, 10, 31, 255
Amherst.....	do.....	xvi	3, 8, 25, 252
Amherstburg.....	do.....	xvii	4, 10, 32, 255
do.....	Harbour.....		19, 118
Annandale.....	Dredging.....	xix	18, 94
Annapolis.....	Post office.....	xvi	3, 8, 25, 252
Annual Statement.....	Expenditure.....		3
Anse aux Griffons.....	Boat landing.....		16
Anse à Louise.....	do.....		16
Anticosti Island.....	Telegraph service.....	vii, xxiii	21, 216, 222
Antigonish.....	Post office.....	xvi	3, 8, 25, 252
Appendix No. 1.....	Accountant's report, &c.....		3
Arichat.....	Navigation opening, &c.....	xiii	210
Arnprior.....	Post office.....		4
Art Gallery, National.....	Visitors, &c.....	viii	5, 239
Ashcroft and Barkerville.....	Telegraph lines.....	vii, xxiii	21, 218, 234
At the Gravel Pits.....	Painting.....	viii	239
A Venetian Bather.....	do.....	viii	239
Aylmer.....	Post office.....	xx	4, 9, 29, 253
Babin's Cove.....	Constructing wharf.....	xv	14, 46
Baddeck.....	Post office.....	xvi	3, 8, 25, 252
Baie des Pères.....	Pier repairs.....		15
Baie St. Paul.....	Isolated pier and wharf extension.....	xix	15, 72
Barrie.....	Post office.....	xvii	4, 10, 32, 255
Barkerville, &c.....	Telegraph lines.....	vii, xxiii	21, 218, 234
Bass River.....	Constructing wharf.....	xv	14, 46
Bathurst.....	Public building.....	xiv	3, 8, 27, 253
do.....	Navigation opens, &c.....	xiii	210
Battleford.....	Bridge.....		20
Bayfield.....	Breakwater, wharf, &c.....		14
Bay Fortune.....	Harbour improvements.....	xix	15, 66
Bay of Fundy.....	Telegraph system.....	vii, xxiii	20, 215, 227
Bay View.....	Repairs to pier.....	xix	15, 66
Bear Trap.....	Opening channel.....	xv	14, 46
Bella Bella.....	Indian school, &c.....		12
Belleville.....	Harbour.....		17, 119
do.....	Navigation opens, &c.....	xiii	210
do.....	Post office, &c.....	xvii	4, 10, 32, 255
Belly River, Lethbridge.....	Bridge.....	xxii	20, 156
Belœil.....	Piers, &c.....		15
Berlin.....	Post office.....	xvii	4, 10, 32, 255
Bersimis, East and West.....	Telegraph service.....	vii, xxiii	21, 218, 229
Berthier (en bas).....	Repairs and dredging.....		15, 18, 117
Bic.....	Repairs to wharf.....	xiii	19, 150
Birtle.....	Immigrant building.....		6
Black River.....	Pier, &c.....		150
Blanche Harbour.....	do.....	xv	14, 46
Blue Rock.....	Repairs to breakwater.....	xv	14, 47

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Boularderie, Monday Point	Wharf, construction of	xv	14, 47
do Ross Ferry	Improvements		14
Bowes, J.	Retiring allowance		21
Bow River	Bridge repairs		20
Brampton	Post office, &c.	xvii	5, 10, 32, 255
Brandon	Custom-house		6, 11, 256
do	Dominion buildings	xiii	6, 11, 37, 256
do	Experimental farm		6, 11
do	Post office, &c.	xiii	6, 11, 37, 256
do	Inland Revenue office		11
do	Immigration building		6, 11
do	Industrial school	xiii	6, 11, 37
Brantford	Post office, &c.	xvii	5, 10, 32, 255
British Columbia	Generally	ix	13
do	Telegraph service	vii, xxiii	21, 218, 234
Broad Cove—Inverness	Repairs to wharf	xv	14, 49
do Lunenburg	do breakwater	xv	14, 48
Brockville	Post office		5, 10, 255
Buctouche	Rebuilding wharf	xiii	15, 59
Buckhorn	Trent Valley works		153
Buildings, Public	Nova Scotia	iv, xvi	3, 8, 25, 252
Burleigh	Trent Valley works		154
Burlington Channel	Pier, repairs to, and dredging	xvii	17, 78
do	Repairs to bridge		20
Burntchurch	Wharf		15
Cables	Government sub-marine	vi	216
Cacouna	Pier extension	xix	15, 72
Calgary	Clerk of works office		12
do	Court-house, &c.		7, 12, 257
do	Immigrant building		7, 12, 257
do	Mounted Police barracks		12
do	Post office, &c.		7, 12, 257
do	Registry office		12
Calumet Station	Slide, &c.		148
Campbell's Cove	Repairs to breakwater	xix	15, 6
Campbellton	Ferry landing	xiii	15
do	Navigation opens, &c.	xiii	210
"Canada"	Dredge	x	96, 102, 142
Cap de la Magdeleine	Extension of wharf	xix	15, 72
Cape Beale, &c.	Telegraph lines	vi	234
Cape Breton	do service		224
Cape Ray	do lines	vii, xxiii	21, 215, 221
Cape Sable	do do	vii, xxiii	20, 215, 225
Cape St. Mary	Wharf repairs		14
Cape Tormentine	Harbour works, &c.	xiii	15, 59
Cardigan	Dredging	xix	18, 94
Caretakers	Names, salaries, &c.		8, 200
Cariboo Island	Telegraph service		230
do	Raising causeway	xv	14, 48
Carillon Station	Ottawa River		147
Carleton	Post office		3, 8, 253
Carleton Place	do		5, 10, 255
Cartier Bridge	River St. Louis	xxii	20, 155, 157
Cascumpec	Breakwater		15
Cayuga	Post office		5, 10, 255
"Challenge"	Dredge	x	123, 134
"Challenger"	SS. at Grosse Isle	xx	4, 29
Chapel Point	Repairs to pier		15
Charlottetown	Dominion building	xix	3, 8, 25, 252
do	Marine hospital		3
do	Navigation opens, &c.	xiii	210
Charlemagne	Dredging		18, 117
Châteauguay River	do		18, 117
Chatham, N.B.	Post office	iv, xiv	3, 8, 27, 253
Chatham, Ont	Post office improvements		5, 10, 255
do Escuminac, N.B.	Telegraph system	vi	20, 226
Chats Station	Ottawa River		148
Chaudière Station	do	iii	147
do	Bridges	xxii	20, 147
Chenau Station	Ottawa River		148

## Department of Public Works.

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Cheticamp	Telegraph lines	vii, xxiii	20, 215, 226
do	Dredging	xvi	18, 89
Chicoutimi	Wharf improvements	xix	15, 73
Chief Officials	Department of Public Works	xvii	193
China Point	Repairs to pier	xix	67
Church Point, N.S.	Constructing cribwork	xv	14, 49
do P. E. I.	Repairs to pier		15
Clifton (Niagara Falls)	Post office		5, 10, 255
Coaticook	do		4, 9, 253
Cobourg	Post office, &c.	xvii	5, 10, 32, 255
do	Harbour, dredging, &c.		17
Collector of Revenue	Report	i, x, xxii	164
Collingwood	Dredging, &c.		17, 19, 119
do	Navigation opens, &c.	xiii	210
Colpo's Bay	Wharf		17
Coloungue River	Slide repair		19, 149
Columbia River, generally	Improvements to channel	ix	17, 82
Contracts let	Report on	x	183
Contrecoeur	Dredging		113
Cornwall	Post office, &c.	xvii	5, 10, 32, 255
Correspondence	Departmental, &c.	viii, x	243
Coteau du Lac	Repairs to pier		16
Cow Bay	Repairs	xv	14, 49
Cribbin's Point	Wharf, &c.	xv	14, 50
Curator's Report	Art Gallery	viii	239
Dairy	Rideau Hall		6
Dalhousie	Post office		3, 8, 253
Dartmouth	Public building	xvi	3, 8, 25
Descousse	Wharf, &c.		14
do	Dredging	xvi	18, 89
Des Joachins	Bridge	xxii	20, 155
Devil's Island	Breakwater		14
Digby	Pier, reconstruction of		14
Disbursements	Dredges		123, 130
Dominion Buildings	Charlottetown	xix	3, 8, 25
do	General expenditure		4, 6, 7
do	Halifax	xvi	3, 8, 26, 252
do	British Columbia	ix	7, 13, 39, 258
Dorval Harbour	Dredging		18, 117
Dredging	Generally—Ontario	i	19, 118
do	Plant	x	18, 142
do	Report on		142
Dredges	Repairs, &c.		18, 142
Dundas	Post office		5, 10, 145
do	Dredging	xix	18, 25
Dundee	Custom-house		4, 259
Dyer's Bay	Construction of landing pier	xvii	17, 78
Eastern Passage	Dredging	xvi	18, 89
Edmonton	Public buildings		7, 12, 257
Engineers, &c.	Names, salaries, &c.		8, 200
Escuminac	Telegraph lines	vii, xxiii	20, 215, 226
Esquimalt	Graving dock	iii, xi	17, 145, 166
Esquimaux Point	Telegraph service		230
Estevan, N. W. T.	Dominion Lands office		12
E. T. Smith	Collector of Revenue	x	163
Etang du Nord	Breakwater repairs	xix	16, 73
Examinations and Surveys	List of places	xxiii	157
Expenditure	Annual statement of	xi	3, 252
do	Decreasing	viii	
Extra Clerks	Salary		21
Fenelon Falls	Slide repairs		153
Firemen, &c.	Names, &c., salaries		8, 200
Fisher and Chestnut Shoals	Dredging	xiv	18, 92
Fraser River	Improvements, survey, &c.	ii, ix	9, 19, 83, 85
Fraserville (Rivière du Loup)	Post office building		4, 9, 254
Fredericton	Post office		3, 8, 253
French Creek and Alberni	Telegraph lines	vii	21, 218
Galt	Post office	xvii	5, 10, 33, 255
Gananoque	do	xvii	5, 10, 23, 255
do	Custom-house		

Names of places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Gardner's Creek	New wharf		15
Garry Bush	Fraser river		83
Gaspé	Navigation opens	xiii	210
Gatineau River and Pier	Slides and booms, &c.	iii, xxiii	16, 19, 149
"Geo. McKenzie"	Dredge	x	90, 99
Georgetown	Pier, repairs to	xix	15, 67
do	Navigation opens, &c.	xiii	210
Goderich	Post office, &c.		5, 10, 255
do	Extension at piers and dredging	xvii	17, 19, 79, 119
do	Navigation opens, &c.	xiii	11, 210
Grande Décharge	Pontoon extension	xix	16, 73
Grand Etang	Harbour works	xv	14, 50
Grand Manan	Telegraph lines	vii, xxiii	20, 216, 227
Grand Pabos	Wharf extension		16
Grandes Piles	Station, slide		152
Grande Rivière	Wharf extension		16
Grand River	Dredging	xix	18, 94
Graving Docks	Employees, &c.	xi	207
do	Dimensions	xii	145
Great Village	Wharf, &c.	xv	14, 51
Grosse Isle	Quarantine station	xx	4
do	Telegraph service	vii, xxiii	21, 217, 228
Guelph	Post office	xvii	5, 10, 33, 255
Gulf of St. Lawrence	Telegraph service	vi	20, 222, 225
Halifax	Assistant Receiver General's office		3, 8, 252
do	Dominion building	xvi	3, 8, 26, 252
do	Drill Hall	v, xvi	3, 26
do	Engineer's office		3, 252
do	Examining warehouse	xvi	3, 8, 26, 252
do	Graving dock	xii	14
do	Immigration building	xvi	3, 8, 26
do	Lawlor's Island quarantine station		3
do	Penitentiary		3, 252
do	Navigation opens, &c.	xiii	210
Hamilton	Dredging		17, 120
do	Custom-house		5, 10, 255
do	Drill shed		10
do	Post office		5, 10, 255
Harbours, P. E. I.	Generally	i, xix	15, 18, 66, 94
do N. B.	do	i, xiii	15, 18, 59, 92
do P. Q.	do	i, xix	16, 18, 72, 117
do Man.	do	i, xiii	17, 81, 136
do N. S.	do	i, xv	14, 18, 46, 88
do N. W. T.	do		17
do Ont.	do	i, xvii	17, 19, 78, 118
do B. C.	do	ix	17, 82, 138
do and Breakwaters	do Maritime Provinces		14
Harbourville	Repairs to breakwater	xv	14, 51
Heating	Dominion buildings	v	8, 40
Herring Cove	Dredging	xvi	18, 90
Hiltz's Narrows	Repairs to pier	xv	14, 51
Hnausa wharf	Lake Winnipeg	xiii	17, 80
Honara Bay	Survey		17
Hopewell Cape	Ballast wharf	xiii	15, 59
Hull	Post office		4, 7, 253
do	Slide, bridge, &c.	xxii	20, 147
Hurd's Point	Repairs to pier, &c.	xix	15, 68
Improvement Co., Upper Ottawa	Costs		22
Indian Head	Experimental Farm		7, 12
Ingonish South	Improvements and expropriating land		14
Isle aux Grues	Pier repairs		16
Isle Verte	Landing pier, repairs	xix	19, 16, 74
Joachim	Slides, &c.		155
Joliette	Post office	xx	4, 9, 29, 453
Kaministiquia River	Dredging		17, 120
Katchawannoe Lake	Boom		154
Kennebecasis River	Improving channel at Moss Glen		93
Kicking Horse River	Protection works	ix	86
Kier's Shore Wharf	Extension	xix	15, 68
Kincardine	Harbour dredging		19, 120



## Department of Public Works.

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Kincardine.....	Navigation opens, &c.....	xiii	210
Kingston, Ont.....	Removing shoal.....	xvii	17, 79
do.....	Graving dock.....	iii, xii	17, 144, 166, 175
do.....	Custom-house.....		5, 10, 255
do.....	Examining warehouse.....		10
do.....	Navigation opens, &c.....	xiii	210
do.....	Immigration building.....		5, 255
do.....	Inland Revenue office.....		10
do.....	Military College.....		5, 10, 255
do.....	Post office.....		5, 10, 255
Kingsville.....	Pier, repairs and dredging.....	xvii	17, 19, 79, 120
Kootenay.....	Improvement to navigation.....	ix	17, 86
Lachine.....	Post office, &c.....		4, 9, 253
Lacolle.....	Wharf repairs.....		16
Lakes Simcoe and Couchiching.....	Regulation of waters.....		17
Lake St. John District.....	Improvement to navigation.....	xix	74
Lambert's pier.....	Repairs.....	xix	15, 68
Laprairie.....	Post office, &c.....		4, 9, 253
do.....	Ice piers.....		16
L'Ardoise.....	Breakwater, reconstruction.....	xv	14, 51
Law amendment.....	Acts relating to.....	viii	179
Lawlor's Island, Halifax.....	Quarantine station.....		3
Lethbridge.....	Public buildings, &c.....	xv	7, 12, 38, 257
do.....	Telegraph lines.....	vii	21, 218, 222
Lévis Graving Dock.....	Reports, &c.....	iii, xii	16, 143, 175
do.....	Immigrant building.....		4, 9
do.....	Cattle quarantine station.....		4
Light.....	Dominion buildings.....	vi	40
Lindsay.....	Post office.....		5, 10, 255
Lillooet.....	Telegraph line.....	xxiii	21, 218
Little Harbour.....	Breakwater.....	xv	14, 52
Little Rapids.....	Slide.....		149
London, Ont.....	Custom-house.....		5, 10, 255
do.....	Immigrant building.....		5
do.....	Post office.....		5, 10, 255
Longueuil.....	Widening pier.....		16
Lotbinière.....	Dredging.....		113
Louis Head.....	Breakwater.....		14
Louisbourg Harbour.....	Navigation opens, &c.....	xiii	210
Louise Basin.....	Dredging.....		18, 118
Louiseville.....	do.....		18, 118
Low Point.....	Telegraph.....		20
Lunenburg.....	Post office.....	xvi	3, 8, 26
Mabou.....	Dredging.....	xvi	18, 90
Macdonald, Sir John A.....	Monument.....		21
Macleod.....	Court-house.....		7, 257
do.....	Customs-house.....		7, 257
Madawaska River.....	Pier, dams, &c.....	iii, xxiii	19, 149
Magdalen Islands.....	Telegraph service.....	vii, xxiii	21, 216, 223
Magog.....	Wharf purchased.....		16
Maisonneuve.....	Monument.....		21
Major's Hill Park.....	Improvements.....	xiii	5, 35
Mal Baie or Murray Bay.....	Pier repairs.....	xx	16, 74
Manitoba.....	Buildings, &c.....	xiii	6, 11, 37, 256
do.....	Harbours generally.....	xiii	17, 136
do.....	Public buildings generally.....		6
Maple Creek.....	Court-house.....		7
Margaree.....	Breakwater.....	xv	14, 52
Margaretville.....	Pier repairs.....	xv	14, 53
Maria Street Bridge.....	Repairs, &c.....	xxii	20, 148
Maritime Provinces.....	Generally.....		4
Matane.....	Pier repairs.....	xx	16, 74
McNair's Cove.....	Breakwater, &c.....	xv	14, 53
Meagher's Beach.....	Protection works.....	xv	14, 54
Meat Cove.....	Telegraph.....	vii, xxiii	20, 215, 224
Medicine Hat.....	Court-house.....		12
Metlakahtla.....	Indian school, &c.....		13
Michaud, Joseph, C.E.....	Retiring allowance.....		21
Midland Harbour.....	Dredging.....		19, 120
Miminegash.....	Repairs to works.....	xix	15, 69

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Minnedosa	Dominion Lands office		11
Miscellaneous	Telegraph expenses, &c.		21
Mistassini River	Improvements	xx	16, 74
Moncton	Post office	xiv	3, 8, 28, 253
Monk's Head	Cutting channel	xv	14, 54
Montague	do		3, 8, 252
Montreal	Custom-house, &c	xx	4, 9, 29, 253
do	Dominion buildings generally		4, 9, 253
do	Drill hall		4, 9
do	Examining warehouse	xx	4, 9, 29, 253
do	Immigration office		4
do	Inland Revenue office	xx	4, 9, 30, 253
do	Post office, improvements	xx	4, 9, 30, 253
do	do St. Lawrence street		4
do	do St. Catharine do		4
do	Public buildings generally		4, 9, 253
do	Ship channel, dredging	i	16, 113
do	Navigation, opening of, &c.	xiii	210
Moose Jaw	Court house, &c.		7, 12, 257
Moosomin	do	xv	7, 12, 38
Moss Glen	Dredging	xiv	18, 93
Mountain Station	Ottawa River		148
"Mud Lark"	Dredge	x	139
Murray Bay or Mal Bay	Pier, repairs	xx	16, 74
"Muskrat"	Dredge		82
Nanaimo	Post office		7, 13, 257
do &c.	Telegraph service	vi	235
Napanee	Post office		5, 10, 255
Nappan	Experimental farm		3
National Art Gallery	Report, &c.	viii	239
Navigation	Opening and closing of	xiii	210
Negro Point	Improvements to works	xiv	15, 60
New Brunswick	Public buildings	xiv	3, 8, 27, 253
New Carlisle	Repairs to pier	xx	16, 74
Newcastle, N.B.	Post office		3, 8, 253
Newcastle, Ont	Slides and booms	iii	20, 153, 165
"New Dominion"	Dredge	x	97, 101
"Newfield" SS.	Repairs	vii	21, 215
Newfoundland	Telegraph service	vii, xxiii	21, 215, 221
New Glasgow	Post office	xvi	3, 27, 252
New London	Repairs to breakwater	xix	15, 69
New Westminster	Public buildings	ix	7, 13
Nipissing	Dredge	x	125, 131
North Cardigan	Repairs to pier	xix	15, 70
North Shore	Telegraph service	vi	21, 216, 229
North Rustico	Navigation opens, &c.	xiii	210
North Sydney	Post office		3, 8
do	Navigation opens, &c.	xiii	210
North-west Territories	Telegraph service, &c.	vii, xxiii	21, 218, 222
Nova Scotia	do	vi	20, 215, 224
Nyanza	Wharf	xv	14, 54
Oakville Harbour	Dredging		19, 121
Officials, Principal	Department of Public Works, 1841 to 1895	xvii	193
Official correspondence	do do	viii, x	243
Old Man's River	Bridge	xxii	20, 156
"Ontario"	Dredge	x	124, 131, 134
Orangeville	Post office		5, 10, 235
Orillia	do &c	xvii	5, 10, 33
Oronocto Shoals	Dredging, &c	xiv	18, 93
Ottawa	Bank of Ottawa buildings		5, 255
do	Canal office		5
do	Central Experimental Farm	xviii	5, 10, 34
do	Central Chambers, rent		5, 255
do	Repairs to bridges	xxii	20, 147
do	Civil Service examination		5, 255
do	Departmental buildings	xviii	5, 36
do	Examining warehouse		5, 255
do	Geological Museum		5, 255
do	Government House, Rideau Hall	xviii	6, 35
do	Langevin Block	xviii	5, 36

## Department of Public Works.

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Ottawa	Major's Hill Park	xviii	5, 36
do	Parliament buildings	xviii	5, 36, 255
do	do grounds	xviii	5, 36
do	Post office	...	5
do	Printing Bureau	xviii	5, 35
do	Public buildings, &c.	xviii	5, 10, 35, 255
do	Snow, removal of	...	5, 36
do	Streets, lighting, &c.	...	6, 36
do	Supreme Court building	...	5
do	Translators' room, Sussex street	...	6, 255
do	Victoria Hall, Art Gallery	xviii	5, 36, 255
do	Workshops, rent and light	...	6, 255
do	River Works	iii, xxiii	19, 147, 163
Owen Sound	Harbour dredging, &c.	xvii	17, 79
do	Navigation opens, &c.	xiii	210
Parliament Buildings	Ottawa	xviii	5, 35
do	do	xviii	5, 36
Parrsborough	Repairs to wharf	xv	14, 55
Partridge Island	St. John, N.B., quarantine station, &c.	xiv	3, 8, 28
do	Wharf	...	15
Pelée Islands	Telegraph lines, &c.	vii, xxiii	21, 217, 231
Pembroke	Post office, &c.	...	6, 11, 255
Penetanguishene	Dredging	...	19, 121
Percé	Navigation opens, &c.	xiii	210
Peterborough	Custom-house and post office	...	6, 11, 255
do	Slide repairs	...	153
Petewawa River	Dams, slides, booms, &c.	xviii	19, 150
Petit Canal	Bridge	...	20
Petit Cap	Boat landing	...	16
Petite Rivière (St. François)	Removal of boulders	xx	16, 75
Petrolia	Post office, &c.	...	6, 11, 42
Phillipsburg	Pier	...	16
Pickering Harbour	Dredging	...	19, 119
Pictou, N. S.	Custom-house	...	3, 8, 252
do	Harbour dredging, &c.	xvi	14, 18, 89
do	Navigation opens, &c.	xiii	210
do	Post office, &c.	xvi	3, 27
do	Wharf repairs	xv	14, 55
Piers	Below Quebec	...	16
Pinette	Repairs to pier	xix	15, 70
Pointe du Chêne	Wharf, &c., extended	xiv	15, 18, 62, 93
Point Edward	Immigration building	...	6, 255
Pointe Jaune	Boat landing	...	16
Pointe aux Esquimaux	Wharf	...	16
Pointe St. Pierre	Harbour	...	16
Pond Creek	Bridge repairs	xxii	20, 155
Portage du Fort	Bridge	xxii	20, 155
Portage la Prairie	Post office, &c.	...	6
Port Albert	Dredging, &c.	xvii	17, 80
Port Arthur	Post office, &c.	...	6, 11
do	Harbour, dredging, &c.	...	17, 19
do	Immigrant building	...	6
do	Navigation opens, &c.	xiii	210
Port Colborne	Post office	...	6, 11, 255
Port Daniel	Repairs to pier	...	16, 75
Port Dover	Navigation opens, &c.	xiii	210
Port Elgin	Dredging, &c.	...	17, 19, 121
Port George	Repairs to breakwater	xvi	14, 55
Port Hope	Piers, &c., repairs and dredging	...	17, 19, 121
do	Post office, &c.	...	6, 11, 256
do	Navigation opens, &c.	xiii	210
Portland	Post office	xiv	3, 8, 28, 253
Port Medway	Harbour improvements	xvi	14, 55
Port Mouton	Repairing piers, &c.	xvi	14, 56
Port Rowan	Landing pier	xvii	17, 80
Port Selkirk	Pier, reconstruction	...	15
Port Stanley	Navigation opens, &c.	xiii	210
do	Dredging	...	17
Poulaumont	do	xvi	18, 90
Prescott	Public buildings	iv	6, 11, 256

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Prince Albert	Court-house, &c.		7, 12, 257
do	Crown land and other offices		7, 12, 257
"Prince Edward"	Dredge	xix	94, 98, 101
Prince Edward Island	Public buildings	xix	3, 8, 25, 252
do	Telegraph service		20
Printing Bureau	Expenditure, &c.		5, 35
Property	Purchased and sold	x	188
do	Leased	xiii	189
Public Buildings	Generally	iv	6, 7
do	Repairs, &c.	vii	5, 33, 255
Quaco	Repairs to dam	xiv	15, 62
Quamichan	Indian office		13
Quebec	Citadel buildings	xx	4, 9, 30, 253
do	Civil service exam. office		18
do	Clerk or Works office		4, 9, 253
do	Culler's office	xx	4, 9, 30, 253
do	Custom-house	xx	4, 9, 30, 253
do	Dredging		18, 113
do	Drill hall		4
do	Engineer's office		4, 253
do	Examining warehouse		4, 9
do	Harbours generally		16
do	Immigrant building		4, 9
do	Navigation, opening and closing of	xiii	210
do	Observatory		4, 9, 254
do	Post office, wing, &c.	xx	4, 9, 30, 254
do	Public buildings generally	xx	4, 9, 30
do	Queen's wharf, building		4, 9, 254
do	Quarantine station, Princess Louise embankment		4, 9
do	Telegraphs	vi, xiii	21, 216, 229
"Queen"	Dredge	x	18, 126, 132, 134
Queen Wharf, Quebec	Repairs	xx	16, 75
Rainy River	Construction		17
Red Deer	Industrial school		7
do	Dominion Lands office		12
Red River	Dredging	xiii	19, 138
Regina	Clerk of works office		7, 12, 257
do	Post office		7, 13, 257
do	Court house, &c.	xv	7, 12, 38, 257
do	Dominion Lands office		7, 12, 257
do	Gaol and asylum		7, 257
do	Governor's residence	xv	7, 12, 38, 257
Retrenchment	Reduction of salaries	viii	
Revenue	Accrued	xxi	163, 220
Revenue and expenditure	Telegraph service	xxi	20, 220
Richmond	Immigration building		3
do	Public building	xxi	4, 20
Rideau Hall	Ottawa	xviii	6, 33, 256
Rimouski	Wharf extension		16
do	Post office	xxi	4, 31
River Beaudette	Clearing channel		17
do du Lièvre	Protection to dam	xx	16, 75
do du Loup (Fraserville)	Post office, &c.		4, 9, 254
Rivière au Renard	Boat landing		16
River des Prairies	Improvements to wharf		16
do du Sud	Protection work	xx	16, 75
do Grande Bergeronne			16
do L'Assomption	Clearing channel		16
do Mackinac	Improvements		16
do Madawaska	Repairs to slide		149
do Nicolet	Dredging		18, 118
do Ottawa (above Pembroke)	Channel improvements		17
do Richelieu	Improvements		16
do Saguenay	Dredging		16, 117
do St. Anne de la Pérade	do		16
do St. John	Improvements to navigation	xiv	15, 18, 92
do St. Lawrence	Ship channel		16, 113
do do (Isle Gros Bois)			19, 117
do St. Louis	Head gates		16

# Department of Public Works.

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
River St. Louis.....	Bridges.....	xxi	157
do St. Maurice.....	Improvements.....	xx	16, 76
do St. Pierre.....	Dredging.....	.....	19, 118
do St. Placide.....	do.....	.....	19, 118
do Touladie.....	Improvements.....	xx	16, 77
do Yamaska.....	Dam, repairs.....	xx	16, 78
Roads and bridges.....	Repairs.....	xxii	20, 155
Roberval.....	Pier, repairs.....	xx	16, 76
Rondeau Harbour.....	Repairs to landing pier.....	.....	17, 80
Rosa, Joseph.....	Retiring allowance.....	.....	21
Roseway Beach.....	Renewing protection.....	xvi	14, 56
Rustico, North.....	Navigation opens, &c.....	xiii	210
do.....	Repairs to pier.....	xix	15, 70
Saguenay District.....	Slides and booms, report, &c.....	iii, xxii	155, 165
Salaries.....	Reductions of.....	viii	.....
Salmon River.....	Dredging.....	xvi	18, 91
"Samson".....	Dredge.....	x	138
Sambro.....	Dredging.....	xvi	18, 91
Sappers' Bridge.....	Ottawa.....	xxii	148
Sarnia.....	Navigation opens, &c.....	xiii	211
Saskatchewan River.....	Bridge at Edmonton.....	.....	20
Sault Ste. Marie.....	Navigation opens, &c.....	xiii	211
do.....	Repairs to wharf.....	xvii	17, 80
Shawenigan.....	Slide station.....	.....	152
Shediac (Point du Chêne).....	Repairs and extension.....	xiv	15, 62
do.....	Navigation opens.....	xiii	211
Sherbrooke.....	Post office, &c.....	xx	4, 9
Shewen.....	Teredo notes by.....	xxiii	247
Ship Channel.....	River St. Lawrence.....	.....	16, 113
Sir John Macdonald.....	Monument.....	.....	21
Skeena River.....	Improvements to channel.....	ix	18, 87
Slides and Booms.....	Collection of dues.....	iii, xxii	22, 163
do.....	Collector's report &c.....	xxiii	163
do.....	Newcastle district, report, &c.....	iii	2, 22, 165
do.....	Ottawa do do.....	iii	22, 163
do.....	Saguenay do do.....	iii	22, 165
do.....	Staff employed do.....	xxii	196
do.....	St. Maurice district do.....	iii	22, 164
Smith's Falls.....	Post office, &c.....	xviii	6, 36
Snow, W. B.....	Retiring allowance.....	.....	21
Snow.....	Removal of.....	.....	5, 36
Sorel.....	Navigation opens, &c.....	xiii	211
do.....	Post office.....	xx	4, 9, 31, 254
Souris.....	Breakwater, reconstruction.....	xix	15, 70
Southampton.....	Pier, repairs.....	xvii	17, 80
South Gut.....	Wharf repairs.....	.....	14
South Sydney.....	Quarantine station.....	x	3
Spry Bay.....	Dredging.....	xvi	18, 91
St. Ann's, C.B.....	Navigation opens.....	xiii	210
St. Catharines.....	Post office.....	xviii	6, 11, 36, 256
St. Henri.....	do.....	.....	4, 9, 254
St. Hyacinthe.....	do.....	xx	4, 9, 30, 254
St. Irénée.....	Repairs to pier.....	.....	16
St. Jean, Isle of Orleans.....	Wharf repairs.....	xx	16, 76
St. Jérôme.....	Post office.....	xv	4, 9, 254
St. Johns, Que.....	Navigation opens, &c.....	xiii	210
do.....	Post office.....	.....	4, 10, 254
St. John River, N.B.....	Dredging, &c.....	xiv	15, 62
St. John, N.B.....	Custom-house.....	xiv	3, 8, 28, 253
do.....	Dominion buildings.....	xiv	3, 8, 28, 253
do.....	Immigration building.....	.....	8
do.....	Navigation opens, &c.....	xiii	210
do.....	Partridge Island quarantine station.....	xiv	3, 28
do.....	Penitentiary.....	.....	8
do.....	Post office.....	xiv	3, 8, 28, 253
do.....	Savings bank.....	xiv	3, 9, 28, 253
do.....	Steamboat inspector's office.....	.....	3, 253
do.....	Harbour works.....	xv	15, 60
do.....	Wharf repairs.....	xx	16, 77
St. Laurent.....	do.....	.....	16, 77
"St. Lawrence".....	Dredge.....	x	95, 100

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
"St. Lawrence"	Ship channel	i	16, 113
"St. Louis"	Dredge	x	127, 132
St. Mary's Bay	Repairs to pier	xix	15, 71
St. Maurice District	Slides and booms	iii, xxiii	19, 151, 164
St. Michel	Wharf repairs	xx	16, 77
St. Peter's Bay	Breakwater		15
do	Navigation opens	xiii	210
St. Placide	Dredging		19, 118
St. Roch	Post office		10
St. Stephen, N.B.	Post office, &c.		3, 9, 253
St. Thomas	do	xviii	6, 11, 36, 256
St. Vincent de Paul	Penitentiary		4, 10
St. Zotique	Repairs to pier		16
Staff employed	Slides and booms	xxii	196
Statement	Annual expenditure	xi	3, 252
Stephen's pier	Repairs	xix	15, 71
Strathroy	Post office		6, 11, 256
Stratford	Public building	xviii	6, 11, 36, 256
Summerside	Post office	xix	3, 8, 25, 252
Supreme Court, Ottawa	Maintenance, &c.		5
Surveys and Examinations	List of	xxiii	157
Sydney (South)	Post office, &c.	xvi	3, 8, 27, 252
do	Quarantine station		3
do	Navigation opens	xiii	211
Tadoussac	do &c	xiii	211
Telegraph Lines	Report on government, &c.	vii, xxiii	20, 157
do	Revenue and expenditure	vii, xi	20, 220
do	Total St. Lawrence lines expenditure	xi	20, 220
do	Generally		21
Teredo Notes	Paper by E. T. P. Shewen	xxiii	247
Thessalon	New wharf		17
Telephone Service	Public building		5
Thompson, Sir J. S. D.	Funeral expenses, late		21
Thornbury	Repairs to wharf	xvii	17, 81
Three Fathom Harbour	Beach protection repairs	xvi	14, 57
Three Island Cove	Improving channel	xvi	14, 57
Three Rivers	Custom-house		4, 10, 254
do	Post office		4, 10, 254
do	Navigation opens, &c.	xiii	211
Toronto	Assistant Receiver General's office		6
do	Civil Service examination office		6, 256
do	Custom-house, &c.		6, 11, 256
do	Dominion buildings		6, 11, 37
do	Drill hall	iv, xviii	6, 11, 37
do	Engineer's office		6, 256
do	Examining warehouse		6, 11
do	Harbour works	xvii	17, 81
do	Inland Revenue office		6, 11
do	Post office		6, 11, 256
do	Navigation opens, &c.	xiii	211
Tracadie, N. B.	Lazaretto	iv, xiv	3, 29
Trent District	Slides, &c.	iii	20, 153, 165
Trenton	Post office	xviii	6, 11, 37, 256
do	Dredging, &c.		17, 19, 122
Trois Pistoles	Repairs to pier	xx	16, 78
Truro	Public building	xvi	3, 8, 27, 252
Tynemouth Creek	Repairs to pier, &c.	xiv	15, 65
Union Bridge, Ottawa	Repairs	xxii	20, 148
Valleyfield	Post office		4, 10, 254
Vancouver	do		7, 13, 258
Victoria, B.C.	Public buildings	ix	7, 8, 13, 39, 258
do	Drill hall		8, 39
do	Harbour improvements		18, 19, 138
do	Telegraph lines	xvii	21, 193
Walkerton	Post office	xviii	6, 11, 37, 256
Water	Dominion buildings	v	6, 40
Wellington street	Ottawa	xxii	20
West Arichat	Repairs to wharf		14
West Farnham	Post office, &c.	xx	4, 10, 31, 254
Westham	Improvements		85

## Department of Public Works.

Names of Places, &c.	Nature of Work, &c., referred to.	Page in Report.	Pages in Appendices.
West Quaco .....	Improvements to dam .....	xiv	15, 62
Wetaskiwin .....	Dominion Lands office .....		13
Whitby .....	Dredging .....		19, 122
Whitehaven .....	Canal, &c. ....		14, 58
White Mud River .....	Dredging .....		19
Whitewood .....	Immigrant building .....		13
Williams Head, B. C. ....	Quarantine station, &c. ....	ix	8, 13, 40
Wiaraton .....	Navigation opens, &c. ....	xiii	211
Windsor, N.S. ....	Post office building .....	x	3, 8, 27, 252
Windsor .....	Post office .....	xvi	3, 8, 27, 252
Windsor, Ont. ....	Navigation opens, &c. ....	xiii	211
do .....	Public building .....	xviii	6, 11, 37, 256
Wingfield Basin .....	Dredging .....		19
Winnipeg .....	Architect's office .....		6, 256
do .....	Crown Timber office .....		6, 256
do .....	Custom-house .....		6, 11, 257
do .....	Dominion Lands office .....		6, 11, 257
do .....	Engineer's office .....		6, 12, 257
do .....	Examining warehouse .....		7, 12, 257
do .....	Immigration building .....		7, 12
do .....	Indian office .....		7, 12, 257
do .....	Inland Revenue office .....		7, 257
do .....	Military buildings .....		7, 257
do .....	Navigation opens, &c. ....	xiii	211
do .....	Post office, &c. ....		7, 12, 257
do .....	Public buildings .....	xiii	6, 11, 37, 256
"Winnipeg" .....	Dredge .....	x	137
Woodstock, N. B. ....	Post office, &c. ....	xiv	3, 9, 253
Wood Islands .....	Repairs to breakwater .....	xix	15, 71
Wolseley .....	Court-house .....	xv	7, 13, 38
Work .....	Increasing .....	viii	
Yarmouth .....	Post office .....		3, 8, 252
do .....	Dredging .....		14, 92
York Factory .....	Navigation opens, &c. ....	xiii	211
York Bridge .....	Repairs, &c. ....	xxii	20, 155
Yorkton .....	Dominion Lands office .....		13

# Department of Public Works.

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 27th January, 1896.

The Honourable J. A. OUMET,  
Minister of Public Works,  
Ottawa.

SIR,—I have the honour to submit to you the report of the operations of the Department of Public Works for the fiscal year ended on the 30th June, 1895.

The various services under the control of the department, consist of:—The construction and maintenance of harbour and river improvement works, public buildings, and telegraphs. These have been well looked after by the chiefs of the several branches whose duties are to report upon the works necessary to be done during the fiscal year, under the several appropriations voted by Parliament, carry out the works of construction, repairs and maintenance ordered from time to time under the authority of Parliament and the instructions of the Minister, and certify all accounts and estimates for the works so executed.

## HARBOURS AND RIVERS.

The branch referring to harbours and rivers improvement works, which is under the direction of the Chief Engineer of the department, covers the construction of all docks, breakwaters, piers and landing wharfs over the entire Dominion, the maintenance and repairs of the same, the dredging of the several harbours and rivers under the control of Canada, as well as the maintenance of and repairs, to slides, booms and other works used and constructed for the passage of lumber from the lumber manufacturing grounds to the several shipping points in Canada. The importance of the duties connected with this very extensive branch of our operations may well be judged of by the fact, that they have extended during the last fiscal year over one hundred and twenty different points in Canada, and that dredging has been performed at forty nine different places, including the maintenance of that great avenue of trade and commerce, the River St. Lawrence between Montreal and Quebec, the total number of cubic yards of excavated material removed approximating, in round figures, 1,200,000 yards. This work of dredging was executed with a plant comprising nineteen dredges, sixteen tugs, fifty-six scows, three stone lifters and one snag boat.

## DREDGING.

The materials excavated, comprise all possible varieties from hard pan and large boulders in the Ship Channel at Barre à Boulard, where the average cost was 54½ cents per yard, to sand, clay and mud on the River Kaministiquia, where the cost of removal only averaged 8½ cents per yard. The demand for dredging this year was very large, owing to unprecedented low water in the harbours and rivers, especially in Ontario, where the water level had been reduced in some places as much as three feet. This state of things created great difficulty for vessels entering several of the harbours, where the depth at the entrance has been maintained by periodical dredging, to the level required by the trade. Relief was given in as many places as was possible with the plant, and the appropriations at the disposal of the



department. The total expenditure on dredging was \$111,569.70, not including the work on the Ship Channel between Montreal and Quebec, where the expenditure was \$89,929.81.

#### WHARFS AND PIERS.

The sum expended in the construction of new works or in partly rebuilding or extending existing wharfs and piers was, during the last fiscal year, \$456,841.37, and that expended on repairs, \$67,220.07. The repairs needed on existing works are extensive and require more than the amounts which it is possible to place at the disposal of the department each year. Such is the case especially in some parts of the Maritime Provinces where the suddenness and terrible force of autumn and spring gales, together with the ravages of the teredo and limnoria worms, tend to weaken in a comparatively short time, the strongest works and place them in a state of decay which subsequently commands a large expenditure for repairs and maintenance. The damages caused by these terrible worms, the teredo and limnoria, have been observed on several of the new works, where timbers were considerably eaten up after a period of barely six months, and were rendered too weak to be of much use after a period of eighteen months or two years. The timber becomes perfectly honey-combed, its diameter is reduced by one half or more and its power of resistance in a short time is practically gone. A heavy storm will then come and the work is wholly or partially swept away. This danger has, of late, been partly obviated by the use of creosoted timber, but the fact that the timber in question is not manufactured in Canada and has to be procured in the United States, nearly doubles the cost of the work, while at the same time it prevents the use of our native timber.

It is therefore to be hoped that Canadian enterprise will be directed towards the establishment of that industry in our own country.

In Western Canada, most important works have been carried on and completed, especially at Goderich, Owen Sound and Toronto. At the latter place the eastern entrance is nearly finished, only a short length of one of the side piers requiring to be levelled and planked to make the whole work complete. This important structure, which has been designed to give a sixteen feet channel into the harbour of Toronto, has been successfully carried out by Messrs. Murray & Cleveland, under the active and careful superintendence of the resident engineer.

In this province, as well as in the province of Quebec, the province of Manitoba and in the North-west Territories, the existing works have been cared for and maintained as far as the means at the disposal of the department rendered it possible.

#### FRASER RIVER, B.C.

In British Columbia, a considerable sum of money has been expended for the improvement of the harbours and navigable rivers of that province, and especially the Fraser River, where a problem of considerable magnitude will have to be met and disposed of by the department. The channel of this river, mainly towards its mouth, has been undergoing important changes especially after the very heavy freshets which caused so much damage during the last two years. The submarine dams made up of brush mattresses, which had been constructed and sunk to direct the current of the river and preserve the channel utilized for navigation, have, it is

## Department of Public Works.

true, for a time fulfilled their mission and been of vast usefulness, but the enormous flow of water, caused by the freshets, the scouring of the bottom and the erosion of the very friable banks of the river, have opened new ways for the water, created new channels and disturbed the conditions of navigation to such an extent, that entirely new works and of considerable magnitude will be required to counteract the action of these disturbing elements, and give a water way which will have the permanency as well as the depth required. The department is now at work on that question which has been an object of close and careful study for many years, by the able representative of the department in British Columbia, who has supplied the Chief Engineer with well prepared reports and data which will enable him to submit a comprehensive and full report on this very important question.

The works now in existence for the descent of timber on the Ottawa, St. Maurice, Trent and Saguenay Rivers, as well as the several graving docks constructed and owned by the department at Esquimalt, B. C., Kingston, Ont., and Lévis, Que., have been maintained in a good state of efficiency, the dues collected for the use of these several works having been as follows:—

### COLLECTION OF REVENUE.

Gross collections for the year 1894-95.....	\$101,864 27
Net do do .....	90,302 85
The expenditure for the same period has reached a total of.....	83,081 50
So that the excess of the gross revenue for the year over the expenditure has been.....	18,782 77
And that of the net revenue... ..	7,231 35

### SLIDES AND DOCKS.

The excess of revenue over expenditure is especially noticeable in the returns for the Ottawa and St. Maurice Districts, but as regards the graving docks, outside of Lévis where the collection was \$13,995.19 and the expenditure \$8,321.62, it must with regret be stated that the revenue has fallen far short of the previous year. At Esquimalt the competition of smaller docks at various points on the coast, together with the fact that since the construction of the dock, the Imperial war ships do not pay any dockage dues, but only the ordinary expenses, have reduced the returns very materially.

At Kingston, on the complaint of the vessel owners that the high rates were prohibitive and prevented the use of the dock by a large number of vessels, the rates have been reduced as an experiment for one year, but the reduction in question, which has naturally had for a result a serious decrease in the returns, has not been met by a corresponding increase in the number of vessels using the dock. It would therefore appear advisable to restore the old rates, in order to make the dock, as heretofore, as self-supporting as possible.

The slide at Alma, on the Saguenay River, not being any more utilized for the passage of timber, will require to be abandoned, as it is the cause of yearly expenditure without returns for its use, and as there is no likelihood of its ever being required in the future.

It is gratifying to state that all the dues accrued on the revenue producing works during the year, have been collected.

#### PUBLIC BUILDINGS.

The total amount expended in connection with the branch of the department which relates to the construction and maintenance of the public buildings under the supervision of the Chief Architect, was \$760,617.33. The new buildings which had been commenced previous to the fiscal year under review, viz., the post offices at Lunenburg, N.S., Chatham, N.B., Smith's Falls, Ont., the court house at Wolseley, N.W.T., the Lazaretto at Tracadie, N. B., and the drill hall at Toronto, have been completed and are occupied, with the exception of the Lazaretto, which is now being fitted up with the required furniture, and will be occupied probably next month.

The drill hall at Toronto, an imposing structure, the cost of which was in the neighbourhood of \$300,000, exclusive of the site which was given by the city, was constructed in a remarkably quick and successful manner by the late John Stewart, contractor of Ottawa. The building is built of brick with stone dressings and is 300 feet long by 183 feet wide.

The main hall for drilling purposes is 280 feet long by a width of 125 feet. In the centre of the south side of the building are the officers' quarters, 47 by 50 feet and four stories in height. The roof is of iron, covered with galvanized iron, and there are armouries on both sides of the building, two stories high. The building is lighted by electricity and is heated by hot water. The work was well executed by the contractor and will provide ample accommodation for the militia force of Toronto.

#### TRACADIE LAZARETTO.

The lazaretto at Tracadie, will provide quarters infinitely better adapted for the care of the lepers than the low, small and rickety buildings in which the Rev. Sisters in charge, and their patients, have lived since the establishment of the leper quarantine at Tracadie. The first lazaretto was built in 1844, on Sheldrake Island, in the Miramichi, when twenty lepers were admitted. It is stated that before that date, at least fifteen persons had died in the district, making at least thirty persons who contracted the disease, during a period of fifteen years, the first leper having died in 1828. This shows, how necessary was the establishment of the quarantine, as a means of checking and stamping out this disease. For many years it was confined to Tracadie, but now only one-third of the patients are natives of that place, the others coming from surrounding districts and parishes.

The Lazaretto was transferred to Tracadie in 1849, but the buildings were destroyed by fire in 1852, and those now occupied were then erected. However the accommodation therein given, was so contracted and so out of keeping with the work required to be done, that upon the very strong representations of the Rev. Mr. Babineau, chaplain of the Lazaretto, and the medical officer, Dr. Smith, to the Minister of Agriculture, a vote was obtained from Parliament and the present building commenced in May, 1894. The work was pushed with such vigour that the contract was finished in October last, and there is every hope that in a month or so the Reverend Religieuses in charge will be able to occupy the building with their patients.

## Department of Public Works.

Beyond furnishing better accommodation for the patients and the Sisters, whose self-sacrificing spirit in taking care of one of the most repulsive forms of suffering humanity, is beyond all praise, the better quarters now offered will be an incentive to persons suffering from the disease to enter the lazaretto, where they will receive better treatment and more comfort than they can find in their own houses, and thus by absolute segregation the disease will be circumscribed, and within a certain period it is hoped will eventually disappear.

The number of lepers now in the lazaretto is 20, 14 males and 6 females.

### POST OFFICE, VICTORIA.

During the fiscal year, four new buildings were commenced by the department, viz., the post offices at Pictou, N.S., Rimouski, Que., Victoria, B.C., and the drill hall at Halifax. The two first buildings are of the type of similar buildings already constructed by the department and will be completed during the next fiscal year. The new post office at Victoria is of grander proportions and has been designed to meet all the requirements and to house under the same roof all the various public services in the city, with the exception of public works and marine, which will remain in the present custom house building. The building is to be constructed of cut stone and the length of the principal or main portion will be 135 feet by a width of 73 feet and four stories in height. Extending from the main building will be the examining and bonded warehouse, 100x37 feet, two stories in height. The roof is to be of wood with copper covering. The ground floor and part of the basement will be occupied by the post office, the first floor by the customs and savings bank, and the second floor by the inland revenue and post office inspectors' offices. The building will be heated by hot water and as designed will give ample accommodation for all departmental requirements. It is constructed on the block of land inclosed by Government and Wharf streets and a lane running along the rear end of the lot.

### DRILL HALL, HALIFAX.

The drill hall at Halifax is very much similar in type to that constructed at Toronto, except that it is to be built of stone—that material being procurable at an easy distance and to the total cost not presenting a material difference with that of a building of brick and stone. Its length will be 303 feet and width 156 feet. The hall for drilling purposes will be 250 feet in length by 110 feet in width, and the officers' quarters will be 65 feet by 20 feet and four stories in height. The roof will be constructed of iron, with galvanized iron covering and there will be armouries on one side of the building, two stories in height. The work will be done by Mr. John Askwith of Ottawa, and the building will stand on the lots of land bounded by Cunard, Maynard, North Park, and John streets.

### MAINTENANCE OF BUILDINGS, HEATING, ETC.

The work of maintenance of the several public buildings under the charge of this department, which number about 175, has been well carried on during the past fiscal year. Several important repairs have been executed to those structures, as mentioned in the appendices attached to this report, and the various water, gas and heating services have been kept in good repair. Some seven thousand tons of coal were purchased for the heating of the buildings outside of Ottawa, while two

thousand tons were purchased for the Ottawa buildings. The price of coal is being gradually reduced, the rates for 1894-95 having been somewhat below those of 1893-94 while the reduction still keeps on for the year 1895-96. This will explain how the appropriation for heating public buildings has remained at the same amount or the years 1894-95 and 1895-96, although the number of buildings has gradually increased.

An increase in the cost of lighting the public buildings may however be noticed, this being due to the general demand for electric light and its consequent introduction in buildings where coal oil was hitherto used, as well as the substitution in a large number of places of electric light for gas, although in many instances this latter mode of illumination is cheaper but presents more difficulties as regards the proper ventilation of offices, where a large number of clerks are working together, such as the post offices in large cities.

The only important casualty this year in connection with the public buildings was the destruction by fire of the immigration building at Halifax, on the 27th January, 1895. Steps have been taken at once, jointly by the Departments of Interior, Railways and Canals and this department, to provide new buildings which will be constructed during the fiscal year 1895-96.

#### TELEGRAPHS.

There are two thousand six hundred and fifty-eight miles of telegraph lines under the control of the department, subdivided into two thousand four hundred and eighty-seven miles of land lines and two hundred and six miles of cables, as follows:—

	Land lines.	Cables.
	Miles.	Miles.
In Newfoundland.....	14	
In Nova Scotia.....	238	21
In New Brunswick.....	76	12
In Quebec.....	932	164
In Ontario.....	24	9
In British Columbia.....	505	
In North-west Territories.....	698	
	2,487	206

These several lines are under the direction and management of the Superintendent of Government Telegraphs, Mr. D. H. Keeley, who succeeded the late Mr. F. N. Gisborne in that important position. The British Columbia lines are the Ashcroft-Barkerville, the Victoria to Cape Beale, the Nanaimo to Comox and the Alberni-Nanaimo connections. The line in Ontario gives connection between Leamington, Pelée Point and points on Pelée Island. The Quebec system of telegraphs is divided into five sections, that from Baie St. Paul to Chicoutimi, the River and Gulf Line from Murray Bay to Point aux Esquimaux, the quarantine line from Quebec to Grosse Ile and the Anticosti and Magdalen Islands systems. In New Brunswick the Government lines give communication between Chatham and Escuminac, and also between Eastport and Campobello, Grand Manan, Cheney's and Whitehead Islands.

## Department of Public Works.

The Nova Scotia lines extend from North Sydney to Meat Cove, whence connection is made with the Magdalen Islands and St. Paul's Islands by cables. There is also telegraphic communication under government control between Mabou and Cheticamp, as well as between Barrington and Cape Sable. Lastly, may be mentioned the lines in the North-west Territories extending from Qu'Appelle to Edmonton and St. Albert, a distance of 607½ miles, and that between Moose Jaw and Wood Mountain, 90½ miles.

These lines were all constructed at various times when urgently applied for and between points where private companies did not deem it expedient nor profitable to add to their existing lines or to complete the connections required. Pre-eminently among those lines which have rendered incalculable services stands that constructed on the shore of the St. Lawrence from Murray Bay to Point aux Esquimaux in the gulf, and the cable connections uniting the mainlands of Quebec and Nova Scotia with Anticosti and Magdalen Islands. They were first built for the purpose of the fisheries and signal service and have given great assistance not only as regards the fishing industry, but also as regards the signalling of vessels coming up the Gulf and River St. Lawrence, as well as the reporting of distressed and wrecked shipping. The usefulness of those lines would, it is claimed, be greatly enhanced were they extended further down the gulf, and it has already been strongly represented that such extension is a paramount necessity, the more so as the route between Canada and Great Britain, by the Straits of Belle Isle, being the shortest, is the one more generally used. This route presents, however, in some seasons of the year certain difficulties as regards navigation, and the government has already recognized the utmost importance that every possible safeguard and aid to navigation should be afforded by the construction in the straits of lighthouses, fog-horns, signal stations, etc. It is thought, however, that, if to the great assistance already given to navigation, was added the extension of that line of telegraph eastwards, in case of accidents to vessels, help might speedily be afforded and the risk of loss of life and property greatly lessened. By computation on the chart, the distance from the present terminus of our line at Pointe aux Esquimaux to Belle Isle is 440 miles.

All the other lines in New Brunswick and Nova Scotia have been kept up to the required standard as much as practicable, but the operations have in some cases been retarded by the lack of proper means to effect the repairing of the cables wherever interruption has taken place.

### REPAIRS.

At present the repairs are executed with the steamer "Newfield," which is the property of the Marine Department, and its services can only be obtained, of course, when they are not pre-engaged for their own work. Furthermore, the sudden storms in the gulf and on the Nova Scotia coasts, compelling that steamer to seek shelter often at long distances, cause great loss of time in carrying on the required renewals and repairs. Notwithstanding these drawbacks the service is kept as regular and uninterrupted as practicable, and this is done with great success considering the difficulty which is met by the superintendent in the way above mentioned in providing the communications which the establishment of the various lines was designed to afford.

## GENERALLY.

The total volume of correspondence handled by the department during the fiscal year under review, amounts in round figures to about 25,000 letters received, 17,000 letters sent and nearly 10,000 cheques issued and despatched from this department. The work all around is gradually increasing and is being performed by a staff the cost of which is less by \$15,000 than when you took office in 1892-93.

You will please hereunder find a summary of the various reports submitted by the officers in charge of the several branches of the department.

The work specially mentioned in said appendices are:—

Buildings (Public), their construction and maintenance.

Dredging and dredge vessels.

Harbours and piers, their construction and maintenance.

Roads and bridges.

Slides and booms, and the collection of revenue therefrom.

Telegraphs.

Works on navigable rivers.

For convenience of reference, this report, and also the principal appendices, are arranged alphabetically.

## ACTS OF PARLIAMENT.

TITLES:—The titles of such Acts as were passed at the last session of Parliament which have any bearing on the department, will be found in Appendix No. 5, page 179.

## ART GALLERY—NATIONAL.

Two oil paintings were the additions to the collection in the gallery during the fiscal year; their titles are—

“At the gravel pits,” a diploma picture by Wm. Cruikshanks, R. C. A.

“A Venetian bather” by the late Paul Peel, R. C. A.

The number of persons who registered their names in the visitors' book, during each fiscal year, since the gallery was inaugurated, were as follows:—

1882-83.....	8,261
1883-84.....	9,928
1884-85.....	11,893
1885-86.....	8,792
1886-87.....	11,943
1887-88.....	16,593
1888-89.....	14,241
1889-90.....	18,048
1890-91.....	21,289
1891-92.....	20,026
1892-93.....	16,717
1893-94.....	13,366
1894-95.....	19,146

## Department of Public Works.

The Art Gallery occupies the first floor of the Victoria Hall, on O'Connor Street. The Government Fish Hatchery is in the basement, and the Fisheries Exhibit is kept on the ground floor of the same building.

The re-opening of the Fish Hatchery, during a portion of the year, may have had a tendency to increase the number of visitors.

The showing for the year is very satisfactory to all who take an interest in art in Canada.

The report of the curator is given in Appendix No. 13, page 239.

### BRITISH COLUMBIA.

**BUILDINGS:**—The following is a summary of the works carried out in connection with the public buildings in this province, during the fiscal year:

- New Westminster, post office.—Repairs to roof, glazing, plumbing, etc.
- Victoria, customs house.—Alterations, repairs, and furniture, etc., supplied.
- do marine hospital.—Drain repaired and cleaned.
- do post office, etc.—Ordinary repairing to plumbing, gas fixtures, etc.
- do new public building.—Plans prepared and contract entered into for the construction of the building.
- do new drill hall, outbuildings, fuel-rooms and other improvements provided.
- do military storehouse.—Tenders called and contract for construction entered into.

William's Head, quarantine station.—General provisions for the safety and preservation of the plant were carried out.

(See Appendix No. 2, page 39.)

**HARBOURS AND RIVERS:**—During the fiscal year covered by this report, extensive operations for the security and improvement of navigation were carried out as follows, viz.:—

- Columbia River, above Golden.—Improvements to navigation.
- Columbia River, below Kootenay do do
- Columbia River, at Revelstoke.—Protection works.
- Fraser River, Garry Bush do
- Fraser River, mouth of.—Jetty works.
- Fraser River.—Survey of river.
- Kicking Horse River.—Protection works.
- Kootenay River.—Improvements to navigation.
- Skeena River.—Removal of obstructions.

(See Appendix No. 3, page 82.)

**DREDGING:**—The work of removing Beaver and Dredger rocks in the inner and middle basins, respectively, of Victoria harbour, was continued during the year. The former has been removed to a depth of 14 feet mean low water, and a portion of the latter to the same depth.

(See Appendix No. 3, page 138.)



## COLLECTOR OF REVENUE.

Mr. E. T. SMITH:—This officer, who formerly had charge of the collection of the dues pertaining to slides and booms, was this year, entrusted with the collection of the revenue from graving docks and from river works or locks, as well. The duties have been very satisfactorily performed, there being no arrears of recent origin, remaining unpaid at the end of the year. His report is contained in Appendix No. 4, page 163. It gives a detailed account of the transaction of the year as regards the income from graving docks, locks and slides and booms, etc.

## CONTRACTS.

APPENDIX No. 6, page 183, contains a list of the contracts entered into by the department during the year, with the names of contractors and the amount or price paid for works, services and supplies. In the same appendix can be seen a description of all property acquired or disposed of, together with the particulars of leases made by, or to Her Majesty, by the department.

## CORRESPONDENCE.

APPENDIX No. 14, page 243, is a statement wherein is shown the number of official letters sent and received by the respective branches of the department, during each fiscal year, since 1867.

## DREDGING PLANT.

The following is an inventory of dredging apparatus and plant, the property of the department, which was operated by and under its direction and management, during the last fiscal year:—

*In the Maritime Provinces.*

The steam hopper dredge "St. Lawrence."  
do do "Canada."  
The dipper dredge "New Dominion" and 4 scows.  
do do "Prince Edward," 3 scows and 1 water scow.  
do do "George McKenzie," 3 scows and 1 water scow.

*In Quebec and Ontario.*

The dipper dredge "Queen," 2 scows and tug "Ottawa."  
do do "Nipissing," 2 new scows and tug "St. Paul."  
do do "St. Louis," 2 scows, coal scow and tug "Sensation."  
The elevator dredge "No. 9," 3 scows and tug "Delisle."  
The dipper dredge "Challenge," 2 scows and tug "Trudeau."  
do do "Ontario," 3 scows and tug "Sir John."  
Stone lifter No. 1.

*In Manitoba.*

The dipper dredge "Winnipeg," tug "Sir Hector," 2 scows and 1 coal barge.

*In British Columbia.*

The snag boat "Samson."  
The dipper dredge "Mud Lark," 3 scows and tug "Princess."

## Department of Public Works.

### *Ship Channel, River St. Lawrence.*

Four elevator dredges, tugs "John Pratt," "St. James," "St. Francis," "C. J. Brydges," "M. F. Parsons," "Cartier," 2 stone lifters, 2 coal barges, 12 dump scows of 80 yards capacity, 2 scows of 150 yards capacity, 1 sounding scow and 2 coal scows, and 2 winch scows.

**NEW DREDGING PLANT:**—In addition to the above, the department has in course of construction an elevator dredge for use in the St. Lawrence ship channel, and a steel tug to be used as a tender for the new dredge. This new dredge is similar in design, power and capacity to the "Laval," built last year.

The department has also in course of construction a new steel dipper dredge, for use in the Maritime Provinces.

### EXPENDITURE.

**ACCOUNTANT'S STATEMENT:**—This statement of departmental expenditure is contained in Appendix No. 1, commencing at page 1. It shows in detail the works provided for in last year's estimates, and the gross amounts expended on each.

The statement may be condensed as follows, viz.:—

Graving docks .....	\$ 24,680 89
Public buildings—Construction repairs, etc.....	738,478 00
" " —Engineers supplies, heating, light, etc.....	187,968 24
Harbours and breakwaters—Construction repairs, staff and maintenance, etc.....	a543,427 58
Harbours and breakwaters—Dredging.....	111,569 70
" " —New dredging plant, repairs, renewals, etc .....	102,353 11
Slides and booms—Construction, repairs, staff, etc...	b66,060 43
" " —Collection of dues .....	6,334 37
Roads and bridges—Construction and repair. ....	19,229 73
Telegraph lines—Construction, repair, operation, etc.	63,146 20
Miscellaneous—Including salaries of departmental staff, etc.....	165,971 28
<b>Total expenditure. ....</b>	<b>\$2,033,219 53</b>

aExpenditure for improving ship channel between Montreal and Quebec is included in this item.

bExpenditure for construction, and all purposes included.

Another statement by the chief accountant is given in Appendix No. 16, page 252. It shows in detail the nature of the minor expenses, annually necessary for the preservation against ordinary decay and "wear and tear" of public buildings.

### GRAVING DOCKS.

Canada has three graving docks of sufficient capacity to accommodate the largest ships on the ocean, and one at Kingston on the great lakes of sufficient size to enable any craft that can use the Welland Canal to enter it. The Pacific dock at Esquimalt, the Ontario dock at Kingston and the St. Lawrence dock at Lévis are

directly controlled by this department. The Atlantic dock at Halifax is owned and controlled by the Halifax Graving Dock Co., Limited. Its construction was secured by subsidies from the Government of the United Kingdom, Canada, and the city of Halifax.

The dimensions of these docks are as follows :—

**THE LORNE**—Commenced by the Harbour Commission of Quebec in 1878, was assumed and completed by this department in 1889 :—

	Feet
Length.....	445
Width at coping level.....	100
do    bottom.....	73
do    entrance.....	62
Depth of water on sill at high water ordinary spring tides...	26½
do        do        do        neap tides.....	20½

**THE KINGSTON**—was built by this department, having been completed in 1892 :—

	Feet
Length on the floor.....	*280
Width do .....	47
Width at coping level.....	79
Depth.....	20½
Depth of water on sill at low water.....	16
Width of entrance.....	55

(The level of Lake Ontario has a range of 3½ feet.)

\*This length can be increased 13 feet by placing the caisson on the apron line.

**THE ESQUIMALT**—Completed by this department in 1887 :—

	Feet
Length over keel blocks.....	430
Width at bottom.....	41
do    coping level.....	90
do    entrance.....	65
Depth of water on sill at high water, ordinary springs.....	26½

(Spring tides rise 7 to 10 feet, neaps 5 to 8 feet.)

**THE HALIFAX**—was built under agreement with and subject to the approval of this department; completed 1889 :—

	Feet
Length.....	585
Width at coping level.....	102
do    bottom.....	72
do    entrance.....	89¼
Depth of water on sill at ordinary spring tides.....	30

(Spring tides rise 6 feet, neaps 3 feet.)

A more extended description of the graving docks operated by the department will be found in Appendix No. 3, page 143, and the revenue or income from each in Appendix No. 4, page 165.

## Department of Public Works.

**OFFICIALS.**—A list of the graving dock officials and employees, with age, date of appointment, salary, etc., is contained in Appendix No. 10, page 207, of this report.

### MANITOBA.

**BUILDINGS:**—Improvements, repairs, alterations etc., were carried out as follows viz. :—

Brandon, Post Office:—Plumbing repaired, furniture supplied, offices painted, etc.

do Industrial School:—Supplementary hot air heating apparatus, cistern, etc., supplied and building transferred to department of Indian affairs.

(See Appendix No. 2, page 37.)

**HNAUSA WHARF:**—This place is situated on the west shore of Lake Winnipeg, 82 miles from Winnipeg City. During the year a contract for the construction of a wharf 360 feet long and twenty feet wide was entered into. This wharf is being built in order to accommodate the neighbouring settlements, and to enable a small steamer plying on the lake, to land and receive passengers and freight at this point.

**DREDGING:**—The work of dredging the mouth of the Red River and the east channel of the same river, below the town of Selkirk, was continued by the dredge "Winnipeg" during the working season, 44,400 cubic yards were removed at a cost of \$10,288.82, or an average of 23 cents per cubic yard.

(See Appendix No. 3, page 136.)

### MAJOR'S HILL PARK.

The contractor has fully maintained the reputation of this popular resort, for neatness and taste. While the natural attractiveness of the park, is being as far as possible preserved, many features of artificial beauty, and decoration are annually introduced.

(See Appendix No. 2, page 35.)

### NAVIGATION—OPENING AND CLOSING OF.

**DATES:**—The various customs officials will again accept the thanks of the department, for the great promptness with which they responded to the circular asking for information regarding the opening and closing of navigation, and the formation of ice, at the ports mentioned in the usual table, which is appended as Appendix No. 11, page 210. This annual record has been kept in the department since 1867 and is interesting, as it shows the open ports and the period during which some were annually closed.

### NEW BRUNSWICK.

**BREAKWATERS AND PIERS:**—Repairs and improvements to breakwaters, piers and wharfs were carried out in this province as follows, viz. :—

Buctouche—Wharf, which was destroyed by fire, was rebuilt.

Cape Tormentine Works—Worm-eaten timber was replaced.

Hopewell Cape—Ballast-wharf was partly re-constructed.

Negro Point, Breakwater—Stone and concrete protection works, to secure the safety of the light-house at the extremity of the work, were constructed.

Pointe du Chêne—Considerable improvements were made and the works extended.

Quaco West—Improvements to dam.

River St. John—Many improvements in the way of dredging and construction of works were effected.

Tynemouth Creek—East pier was repaired and part of a rocky ledge obstructing channel was removed.

(See Appendix No. 3, pages 59 to 65.)

**BUILDINGS:**—Works in connection with the construction and preservation of public buildings were effected as follows, viz.:—

Bathurst, post office.—Repairs to waste pipes, etc.

Chatham, post office.—This building was completed and occupied.

Moncton, public building.—Hot water boilers were replaced, plumbing, plastering and floors repaired and improved.

Partridge Island, quarantine station.—Considerable necessary repairs, replacements and whitewashing was done.

Portland (St. John), post office.—A large amount of general repairs were required and effected.

St. John, custom house.—A brick partition, mantle and grate, furniture, speaking tubes, etc., were constructed or supplied.

do post office.—Repairs were made to stonework, lead flashing, plumbing, electric bells, locks, furniture, etc., and a new flag staff supplied.

do savings bank.—Terra cotta drain pipes were replaced by cast-iron pipe, etc.

Tracadie, lazaretto.—The building is nearly completed.

Woodstock, public building.—Brickwork was partly renewed, stonework repointed and some woodwork repainted.

(See Appendix No. 2, pages 27; No. 1, pages 3 and 8.)

**DREDGING:**—Operations for the removal of shoals and bars and general harbour improvements by dredging were carried on during the fiscal year in the following places, viz.:—

Fisher and Chestnut Shoals,	York Co.,
Moss Glen—Kennebecasis River,	King's Co.,
Oromocto Shoals,	Sunbury Co.,
Pointe du Chêne,	Westmoreland Co.

(See Appendix No. 1, page 18; No. 3, page 92.)

## Department of Public Works.

### NORTH-WEST TERRITORIES.

**BUILDINGS:**—The subjoined is a summary of the works executed in connection with public buildings in the North-west Territories during the fiscal year, viz :—

Wolseley, court house.—This building has been practically completed.

Lethbridge, public building.—The building was completed and furnished with a hot-air heating apparatus.

Regina government house.—Fire protection was provided and some other necessary repairs and improvements attended to.

do court house.—Building was completed, fitted up and occupied.

Moosomin, court house.—A contract to effect some additions and improvements to the plan of the structure was entered into, and the work is nearly completed.

*See* Appendix No. 1, page 12 and Appendix No. 2, page 38.

### NOVA SCOTIA.

**BREAKWATERS, PIERS, WHARFS, ETC.:**—The operations of the department towards the construction of harbour and river works in the province of Nova Scotia during the fiscal year 1894-95 may be summarized as follows, viz.:—

Babin's Cove, Richmond Co.—Winter service wharf completed.

Bass River, Colchester Co.—Wharf in course of construction.

Bear Trap, Lunenburg Co.—Channel re-opened.

Blanche Harbour, Shelburne Co.—Groin extended.

Blue Rock, Antigonish Co.—Completing stone protection work to breakwater.

Boularderie Island (Monday Point), Cape Breton Co.—Wharf completed.

Broad Cove, Inverness Co.—Re-constructing wharf.

Broad Cove, Lunenburg Co.—Repairs to breakwater.

Caribou Island, Pictou Co.—Raising causeway.

Church Point, Digby Co.—Constructing a block of cribwork to protect breakwater.

Cow Bay, Cape Breton Co.—Repairs.

Cribbin's Point, Antigonish Co.—Ballasting and repairing wharf.

Grand Etang, Inverness Co.—Harbour works.

Great Village, Colchester Co.—Repairs to wharf.

Harbourville, King's Co.—Repairs to western breakwater.

Hiltz's Narrows, Lunenburg Co.—Repairs to warping pier.

L'Ardoise, Richmond Co.—Repairs to breakwater.

Little Harbour, Lunenburg Co.—Widening channel.

Margaree, Inverness Co.—Repairing and re-ballasting breakwater.

do do —Beach protection work.

Margaretville, Annapolis Co.—Repairing breakwater.

McNair's Cove, Antigonish Co.—Close piling, etc.

Meagher's Beach, Halifax Co.—Repairing beach protection work.

Monk's Head, Antigonish Co.—Boat channel.

Nyanza, Victoria Co.—Wharf completed.

Parrsboro', Cumberland Co.—Repairs to pier.

Pictou Island, Pictou Co.—Repairs to west wharf.

Port George, Annapolis Co.—Repairs to breakwater.  
 Port Medway, Queen's Co.—Repairs to beach protection works.  
 Port Mouton, Queen's Co.—Re-building pier.  
     do (South-west) Queen's Co.—Repairs to breakwater.  
 Roseway Beach, Shelburne Co.—Renewing beach protection.  
 South Ingonish, Victoria Co.—Cribwork protection work.  
 Three Fathom Harbour, Halifax Co.—Repairs to beach protection work.  
 Three Island Cove, Richmond Co.—Improving channel.  
 Trout Cove, Digby Co.—Repairs to breakwater.  
 White Haven, Guysboro Co.—Repairs to canal.

(See Appendix No. 1, page 14, and Appendix No. 3, pages 46 to 58.)

**BUILDINGS**:—The works conducted for the preservation, improvement and repair, of the public buildings of this province during the last fiscal year, may be briefly reviewed as follows, viz. :—

Amherst, public building.—Fire hose supplied and minor repairs effected.  
 Annapolis, post office.—Some minor general repairs were done.  
 Antigonish, post office.—Water service was provided and some repairs done.  
 Baddeck post office.—Heating apparatus replaced and other improvements effected.  
 Dartmouth, post office.—A safe and some furniture supplied and incandescent light installed.  
 Halifax, drill hall.—Under construction.  
     do Dominion building.—General repairs.  
     do examining warehouse.—Elevator, drains and plumbing repaired.  
     do immigration building.—Temporary accommodation provided after destruction of buildings by fire.  
 Lunenburg, post office.—Completed, fitted up and occupied.  
 New Glasgow, public building.—Furnace replaced by a Gurney double crown heater.  
 Pictou, post office.—In course of construction.  
 Sydney, public building.—Storm doors repaired.  
 Truro, post office.—Waste pipes and drain repaired and improved.  
 Windsor, post office.—Furnace supplied.

(See Appendix No. 1, page 3, and Appendix No. 2, page 25.)

**DREDGING**:—The departmental dredging plant, available for work in the province of Nova Scotia, was engaged during the season at the following places, viz. :—

Acadia Company's wharf,	Pictou Co.
Cheticamp harbour,	Inverness Co.
D'Escousse harbour,	Richmond Co.
Dwyer's wharf,	Pictou Co.
Eastern Passage,	Halifax Co.
Herring Cove,	Halifax Co.
Mabou harbour,	Inverness Co.
Poulamond harbour,	Richmond Co.
Salmon River harbour,	Halifax Co.
Sambro harbour,	Halifax Co.
Spry Bay harbour,	Halifax Co.
Yarmouth harbour,	Yarmouth Co.

# Department of Public Works.

## OFFICIALS.

APPENDIX No. 7, page 193, is a list of the chief officials who held prominent positions, or are now holding the principal offices in the department. The statement covers the period from 1841 to 1896.

## ONTARIO.

**BREAKWATERS, PIERS, WHARFS, ETC.** :—The harbour and river improvements executed in the province of Ontario, during the year covered by this report, are briefly enumerated in the subjoined list :

- Burlington Channel, Wentworth Co.—Repairs to pier.
- Dyer's Bay, Bruce Co.—Construction of landing pier.
- Goderich, Huron Co.—Extension of piers.
- Kingston, Frontenac Co.—Removal of Point Frederic shoal.
- Kingsville, South Essex Co.—Repairs to landing pier.
- Owen Sound, Grey Co.—Sheet-pile revetment work etc.
- Port Albert, Huron Co.—Extension of piers.
- Port Rowan, Norfolk Co.—Repairs to landing pier.
- Rondeau, Kent Co.—Repairs to landing pier.
- Sault Ste. Marie, Algoma Co.—Repairs to landing pier.
- Southampton, Bruce Co.—Repairs to breakwater and piers.
- Thornbury, Grey Co.—Repairs to landing pier.
- Toronto Harbour, (eastern entrance), York Co.—Harbour improvements.

(See Appendix No. 1, page 17 and Appendix No. 3, page 78.)

**BUILDINGS** :—The following epitome is a record of the works executed under the supervision of the department during the fiscal year, for the construction, preservation and repair of the public buildings in the province of Ontario, viz. :—

- Almonte, public building.—A water tank and other requirements supplied.
- Amherstburgh post office, etc.—Electric light installed and other conveniences furnished.
- Barrie, post office.—Woodwork painted, and minor repairs.
- Belleville, post office.—Store room and other improvements provided and some repairs done
- Berlin, post office, etc.—Painting done, shutters supplied and minor repairs executed.
- Brampton, post office, etc.—Painting, plastering, tinting, etc., done.
- Brantford, post office, etc.—Painting done, plumbing, etc., improved.
- Cobourg, post office, etc.—Minor repairs to building and furniture.
- Cornwall, post office, etc.—Repairs to heating apparatus, etc.
- Galt, post office, etc.—Painting and tinting, etc., done, cement floor, etc., renewed.
- Gananoque, post office, etc.—Chimney repaired and other work of a general renovating character done.
- Guelph, post office, etc.—Considerable work, to renew ordinary wear and tear was done.
- Orillia, public building.—Lot fenced and graded and a plank sidewalk laid.



- Ottawa central experimental farm.—Some general repairs were executed by the staff.
- do eastern block, departmental building.—Minor improvements were made and some necessary conveniences supplied.
- do fisheries, museum and art gallery.—The roof covering was renewed and general repairs and improvements necessary to protect the building, effected.
- do government house.—Extensive additions, renovations and improvements were effected.
- do government printing bureau.—Some ventilators, pipes, wiring, etc., supplied.
- do Langevin block.—Minor repairs to roofing and some fixtures supplied.
- do Major's Hill park.—Some benches supplied and old ones repaired and painted.
- do parliament buildings.—Old boilers were replaced by modern ones and many necessary conveniences supplied and some alterations made.
- do parliament grounds.—Some desirable additions, repairs and improvements were made to the walks, etc. The snow was removed, ice stored and distributed.
- do street maintenance.—The portion of the streets on which the public buildings are bordering have been largely maintained by the department, and were kept in the usual serviceable condition during the year.
- do western block, departmental buildings.—One new office was fitted up and requisites of a minor nature provided in several others.
- Smith's Falls, public building.—The building was completed, fitted, furnished and occupied.
- St. Catharines, public building.—Iron and woodwork were painted and some repairs effected.
- St. Thomas, public building.—Flag staff supplied and sundry repairs made to plastering, furniture and fittings.
- Stratford, public building.—The building has been enlarged, a story added to its height, etc. The work is nearly completed.
- Toronto, drill hall.—This structure, which was described in a former report, has been completed and occupied.
- Trenton, post office, etc.—The plaster was cleaned, repaired and tinted, iron and wood painted and some requisite conveniences provided.
- Walkerton, post office.—Repairs were made to eavestroughs, stairway, etc., and yard was gravelled.
- Windsor, public building.—Sundry repairs were made to fixtures, furniture, etc.

#### PARLIAMENT HILL GROUNDS.

CONTRACT:—The contractor responsible for the keeping and dressing of Parliament Hill, performed his duty in a manner entirely satisfactory to the department.

## Department of Public Works.

### PRINCE EDWARD ISLAND.

**BREAKWATERS, PIERS, WHARFS, ETC.** :—The following is a list showing in brief, the works conducted by the department, during the fiscal year, in the province of Prince Edward Island :—

- Bay Fortune, King's Co.—Harbour improvements.
- Bay View, Queen's Co.—Repairs to pier.
- Campbell's Cove, King's Co.—Repairs to breakwater.
- China Point, Queen's Co.—Repairs to pier.
- Georgetown, King's Co.—Repairs to pier.
- Hurd's Point, Prince Co.—Improvements.
- Kier's Shore, Prince Co.—Improvements.
- Lambert's Pier, King's Co.—Repairs to pier.
- Miminegash, Prince Co.—Repairs to works.
- New London, Queen's Co.—Repairs to works.
- North Cardigan, King's Co.—Repairs to pier.
- Pinette, Queen's Co.—Repairs to pier.
- Rustico, do —Improvements.
- Souris, King's Co.—Repairs to breakwater.
- Stephen's do —Improvements.
- St. Mary's Bay, King's Co.—Improvements.
- Wood Islands, Queen's Co.—Reconstruction and repair of eastern breakwater.

(See Appendix No. 1, page 15; No. 3, page 66.)

**BUILDINGS** :—The departmental operations in connection with the public buildings in the province of Prince Edward Island, during the fiscal year, were confined to the following :—

- Charlottetown Public Building.—Repairs to electric bells, plumbing, etc.
- Summerside Public Building.—Minor repairs to doors, and some walls kalsomined.

**DREDGING** :—In 1894-95, the dredge "Prince Edward" operated for some time at Cardigan, removing 23,625 cubic yards of material; also at the Annandale pier and the wharfs at Dundas, where 24,435 cubic yards of sand and mud were removed.

### QUEBEC.

**BREAKWATERS, PIERS, WHARFS, ETC.** :—The operations of the department in connection with harbour and river works in the province of Quebec, during the last fiscal year, may be briefly stated as follows, viz. :—

- Baie St. Paul, Charlevoix Co.—Extension of wharf and repairs to block.
- Cacouna, Témiscouata Co.—Construction of wharf.
- Cap de la Magdeleine, Champlain Co.—Extension of wharf.
- Chicoutimi, Chicoutimi Co.—Wharf improvements.
- Etang du Nord, Gaspé Co.—Repairs to breakwater.
- Grandes Bergeronnes.—Removal of rocks.
- Grande Décharge, Chicoutimi Co.—Extension of pontoon.
- Isle Verte, Témiscouata Co.—Wharf improvements.
- Lake St. John District.—Improvements to navigation.

Matane, Rimouski Co.—Repairs to pier.  
 Murray Bay, Charlevoix Co.—Repairs to pier.  
 New Carlisle, Bonaventure Co.—Repairs to pier.  
 Petite Rivière Saint-François, Charlevoix Co.—Removal of boulders.  
 Port Daniel, Bonaventure Co.—Repairs to pier.  
 Queen's Wharf, Quebec.—Repairs to wharf.  
 Rivière du Lièvre, Ottawa Co.—Protection to dam.  
 Rivière du Sud, Montmagny Co.—Protection works.  
 River St. Maurice.—Improvements to navigation.  
 Roberval, Chicoutimi Co.—Extension of wharf, etc.  
 St. Jean, Montmorency Co.—Reconstruction of pier.  
 St. Laurent, Montmorency Co.—Repairs to pier, etc.  
 St. Michel, Bellechasse Co.—Repairs to pier.  
 Touladie River.—Témiscouata Co.—Improvements to navigation.  
 Trois Pistoles, Témiscouata Co.—Improvements to wharf.  
 Yamaska Lock, Yamaska Co.—Repairs to dam.

**BUILDINGS:**—Improvements, repairs and works necessary for the preservation utility and usefulness of the public buildings in the province of Quebec, were carried out as hereinafter stated, during the fiscal year ended 1st July, 1895, viz. :—

Aylmer, post office.—Woodwork was painted.

Grosse Ile, quarantine station.—The ss. "Challenger" was cleaned, painted and such alterations and renewals made to the scientific and disinfecting apparatus, etc., as were necessary to preserve it in good order and ready for use.

Joliette, public building.—Hot-water heating apparatus was repaired.

Montreal, custom house.—Many necessary renewals, repairs and improvements to building, fittings, fixtures, etc., were effected.

do examining warehouse :—Some painting and repairing of a general nature were done.

do inland revenue office :—Roof was painted, furnace altered, laboratory fitted up, etc.

do post office :—Considerable repairs, alterations and improvements were effected.

Quebec, citadel :—The usual cleaning, painting and burnishing, previous to His Excellency's annual visit were done.

do culler's office.—A new coil was placed in one of the rooms.

do custom house.—Repairs of a general character were executed.

do post office.—Heating apparatus supplied, and fittings for new wing are being provided.

St. Hyacinthe, post office.—Some minor repairs to glazing, plastering, etc., were done.

St. Jérôme, public building.—Flag staff, porch and some windows, etc., were provided.

Sherbrooke, post office.—Painting, tinting, varnishing, cleaning, painting, etc., were done.

Sorel, post office, etc.—Repairs and renewals to water service.

West Farnham, post office.—Building was completed, fitted and occupied.

## Department of Public Works

A new public building is in course of erection at Richmond, in this province. It will be a two story structure, with attic and basement, 40 x 40 feet, with a one story annex 40 x 17 feet. Material—brick on a stone foundation. It will accommodate the post office, customs, examining warehouse, and inland revenue offices, with caretaker's quarters.

On the 4th of May a contract was signed for the erection of a post office, etc., building at Rimouski. This structure will also be built of brick on a stone foundation. It will be 40 x 30 feet, two storys, with basement and attic, and a one story annex 26 x 18 feet. It will, in addition to the post office, contain the examining warehouse, customs and inland revenue offices, and the attic for the caretaker.

### REVENUE.

The statement below is a summary of the revenue collected from works under the departmental control during the fiscal year :

#### SLIDES AND BOOMS.

Ottawa district .....	\$52,311 52
St. Maurice district .....	15,755 97
Saguenay do .....	9,148 74
	\$ 77,216 23

#### GRAVING DOCKS.

Lévis. ....	\$13,995 19
Kingston.....	2,878 23
Esquimalt . ....	6,320 25
	23,193 67

#### TELEGRAPH LINES.

Lower St. Lawrence and Maritime Provinces	\$ 5,526 23
Ontario and Pelee Island line .....	127 12
North-west telegraph lines.....	1,771 62
British Columbia (Comox line) .....	906 59
	8,331 56

#### RIVER WORKS—LOCKS.

River du Lièvre lock. ....	\$404 30
River Yamaska . ....	357 78
Arrears .....	674 29
	1,436 37
Total from river works.....	1,436 37
Total amount of revenue collected.....	\$110,177 88

(See Appendix No. 4, page 163, and Appendix No. 12, page 220).

ROADS AND BRIDGES.

BRIDGES:—During 1894-95 repairs were made under the supervision of the department, to the following bridges, viz. :—

- Grand River bridge, at York, Ont.
- Ottawa City bridges, at Ottawa, Ont.
- Des Joachims bridge, River Ottawa.
- Portage du Fort bridge, River Ottawa.
- Belly River bridge, at Lethbridge, N.W.T.
- Old Man's River bridge, at Macleod, N.W.T.

And bridges were built at the following places, viz. :—

- Pond Creek, flowing into Ottawa River, P.Q.
- Cartier, River St. Louis, P.Q.
- River St. Louis Feeder, P.Q.

Details of the work performed will be found in the Chief Engineer's report, Appendix 3, page 155, and the cost in Appendix No. 1, page 20.

SLIDES AND BOOMS.

DUES:—The report of the collector of revenue is contained in Appendix No. 4, page 164. It shows the total amount of revenue collected during the year from slides and booms to have been as follows, viz. :—

Ottawa district.....	\$52,311 52
St. Maurice district.....	15,755 97
Saguenay.....	9,148 74
<hr/>	
Total amount collected.....	\$77,216 23
The total dues accrued during the fiscal year and collected were.....	\$65,492 22
Arrears of previous years collected.....	11,724 01
<hr/>	
	\$77,216 23

Efforts are being made to collect some of the old arrears, as explained in the collector's report, but as many of the firms against whom the claims stand have ceased to exist, or became insolvent, they may in many cases be considered worthless.

PRESENT CONDITION OF WORKS:—In the report of the Chief Engineer of the department—Appendix No. 3, commencing at page 147—will be found the reports of the several officers who are in charge of and superintend the slides and booms in the various districts.

The works have, as already set forth in a previous paragraph, been maintained in a state of efficiency; many necessary repairs, reconstruction and improvements were made, with the view of preserving their usefulness and keeping those required, available, to accommodate and facilitate in the best possible manner the great lumbering industry of the country.

STAFF EMPLOYED:—A list of the slides and booms employees, showing the names, the date of birth, when employed, date of appointment, and salary of each one, is given in Appendix No. 8. page 196.

## Department of Public Works.

### SURVEYS AND EXAMINATIONS.

During the fiscal year included in this report, surveys and examinations were made by officers, under instructions from the department, at ninety-eight different localities, in the several provinces as follows:—

British Columbia.....	1
Manitoba.....	2
New Brunswick.....	40
North-west Territories.....	2
Nova Scotia.....	24
Ontario.....	20
Prince Edward Island.....	15
Quebec.....	16

These surveys and examinations were ordered with the view of obtaining reliable and accurate information, from the report of experienced officers, touching the possibility, practicability and utility, of undertaking the construction of works, which in the public interest are either strongly recommended to, or strenuously urged upon, the consideration of the Government.

The names of the localities which were visited for this purpose, last year, will be found in Appendix No. 3, page 157.

### TELEGRAPHS.

As already stated in the preliminary pages of this report, this service was maintained in a fair state of efficiency, a full report of which will be found in the superintendent's report, Appendix No. 12, page 215.

### TEREDO NOTES.

The animal known as the *Teredo* or "ship worm," has been so destructive to timber structures such as breakwaters, piers, wharfs, etc., erected by the department in the Maritime Provinces, that any information of a practical or scientific character, that may enable its depredations to be guarded against, cannot fail to be of interest and of great value. The paper on this subject, by Mr. E. T. P. Shewen, Resident Departmental Engineer at St. John N. B., which is appended in Appendix No. 15, page 247 and which was read before the Natural History Society of New Brunswick, is a valuable contribution to literature on this subject and is therefore annexed to this report.

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

A. GOBEIL,  
*Deputy Minister.*

Department of Public Works.

APPENDIX No. 1

---

# STATEMENT OF EXPENDITURE

DURING FISCAL YEAR ENDED 30th JUNE, 1895

BY

O. DIONNE, ACCOUNTANT





# Department of Public Works.

(Reference No. 166388.)

## APPENDIX No. I.

STATEMENT showing the amount expended by the Department of Public Works,  
Dominion of Canada, during the fiscal year ended 30th June, 1895.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>PUBLIC BUILDINGS.</b>				
<i>Nova Scotia.</i>				
Amherst post office, &c. ....		9 75		9 75
Annapolis do .....		57 50		57 50
Antigonish do .....		113 46		113 46
Baddeck do .....		425 40		425 40
Dartmouth do .....		141 90		141 90
Halifax Assistant Receiver General's office—rent .....		10 90	1,200 00	1,210 90
do Dominion building .....		998 60		998 60
do drill hall .....	21,198 01			21,198 01
do engineer's office—rent .....			100 00	100 00
do examining warehouse—rent .....		81 85	1,707 50	1,789 35
do immigrant shed .....		167 72		167 72
do Lawlor's Island quarantine station .....	2,042 14			2,042 14
do penitentiary—rent .....			0 24	0 24
Lunenburg post office, &c. ....	6,590 14			6,590 14
Nappan experimental farm .....		158 81		158 81
New Glasgow post office, &c. ....		549 95		549 95
North Sydney do .....		4 70		4 70
Pictou custom-house .....		53 23		53 23
do post office .....	11,971 80			11,971 80
Richmond immigration shed .....		16 00		16 00
Sydney post office .....		679 47		679 47
do quarantine station—Keating Point .....	95 07			95 07
Truro post office, &c. ....		173 20		173 20
Windsor do .....		169 43		169 43
Yarmouth do .....		98 21		98 21
<i>Prince Edward Island.</i>				
Charlottetown Dominion building .....	27 62	649 63	500 00	1,177 25
do marine hospital .....	3 48			3 48
Montague post office .....	103 45	13 04		116 49
Summerside do .....	70 27	228 01		298 28
<i>New Brunswick.</i>				
Bathurst post office, &c. ....		35 18		35 18
Carleton do .....		17 90		17 90
Chatham do .....	8,763 81	2 60		8,766 31
Dalhousie do .....		6 45		6 45
Fredericton do .....		653 37		653 37
Moncton do .....		173 78		173 78
Newcastle do .....		31 60		31 60
Portland do .....		109 90	130 90	240 80
St. John custom-house .....	9,613 07	5,383 24	50 00	15,046 31
do immigrant shed .....		10 70		10 70
do Partridge Island quarantine station .....	66 06			66 06
do post office .....		588 08		588 08
do savings bank .....		577 51		577 51
do steamboat inspector's office .....		57 25		57 25
St. Stephen's post office, &c. ....		26 23		26 23
Tracadie lazaretto .....	25,925 91			25,925 91
Woodstock post office, &c. ....		343 50		343 50
Carried forward .....	86,470 83	12,817 95	3,688 64	102,977 42

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provement.	Repairs.	Staff and Main- tenance.	Total.
<b>PUBLIC BUILDINGS—Continued.</b>				
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	86,470 93	12,817 95	3,688 64	102,977 42
<i>Maritime Provinces.</i>				
GENERALLY.....			984 11	984 11
<i>Quebec.</i>				
Aylmer post office.....		27 75		27 75
Coaticook do.....		201 90		201 90
Dundee custom-house.....		118 73		118 73
Grosse Ile quarantine station.....	2,031 62			2,031 62
Hull post office, &c.....		61 94		61 94
Joliette do.....		26 40		26 40
Lachine do.....		228 94		228 94
Laprairie do.....		115 50		115 50
Lévis cattle quarantine station.....		381 50		381 50
do immigrant shed.....		142 57		142 57
Montreal custom house.....	7,119 23	296 30		7,415 53
do Dominion buildings generally.....			338 10	338 10
do examining warehouse.....		1,386 90		1,386 90
do immigration office.....		189 30		189 30
do inland revenue office.....		273 61		273 61
do post office, improvements, &c.....	22,954 92	4,894 27		27,849 19
do do St. Lawrence street.....		113 43		113 43
do do St. Catherine do.....		13 08		13 08
Quebec, citadel buildings.....		1,946 83		1,946 83
do civil service examination office.....		18 00		18 00
do clerk of works' office.....		259 86		259 86
do culler's office.....		40 00		40 00
do custom house.....		276 47		276 47
do Dominion buildings generally.....			417 57	417 57
do drill hall.....	1,672 90			1,672 90
do engineer's office (rent).....			132 00	132 00
do examining warehouse.....		164 72		164 72
do immigrant building, Louise embankment.....		2,192 88		2,192 88
do observatory.....		11 67		11 67
do post office, new wing, &c.....	6,000 00	525 00		6,525 00
do Princess Louise quarantine building.....	797 21			797 21
do Queen's wharf building.....		65 60		65 60
Richmond post office, &c.....	95 79			95 79
Rimouski do.....	222 33			222 33
Rivière du Loup post office, &c. (Fraserville).....	60 05			60 05
Sherbrooke do.....		1,756 21		1,756 21
Sorel do.....		9 17		9 17
St. Henri do.....		1,424 93		1,424 93
St. Hyacinthe do.....	3,735 15	242 07		3,977 22
St. Vincent de Paul penitentiary.....	27,962 51			27,962 51
St. Jérôme post office.....		194 25		194 25
St. John's do.....		144 74		144 74
Three Rivers custom house.....		1,750 54		1,750 54
do post office.....		688 19		688 19
Valleyfield post office (rent).....		14 20	329 70	343 90
West Farnham post office.....		481 70		481 70
<i>Ontario.</i>				
Alexandria reformatory.....	5,369 28			5,369 28
Almonte post office, &c.....		434 40		434 40
Amherstburg do.....		325 25		325 25
Arnprior do.....	3 00			3 00
Barrie do.....		126 55		126 55
Belleville do.....		467 40		467 40
Berlin do.....		462 41		462 41
Carried over.....	164,494 82	35,313 11	5,890 12	205,698 05

# Department of Public Works.

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
<b>PUBLIC BUILDINGS—Continued.</b>				
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward . . . . .	164,494 82	35,313 11	5,890 12	205,698 05
<i>Ontario—Continued.</i>				
Brampton, office, &c. . . . .		181 18		181 18
Brantford do . . . . .		232 60		232 60
Brockville do . . . . .	2,450 00	618 33		3,068 33
Carleton Place do . . . . .		11 00		11 00
Cayuga do . . . . .		62 94		62 94
Chatham do . . . . .		18 40		18 40
Clifton do . . . . .		4 40		4 40
Cobourg do . . . . .		288 50		288 50
Cornwall do . . . . .	131 32	265 44		396 76
Dundas do (rent) . . . . .		8 50	625 00	633 50
Galt do . . . . .		603 18		603 18
Gananoque do . . . . .		151 30		151 30
Goderich do . . . . .		11 10		11 10
Guelph do . . . . .		1,043 67		1,043 67
Hamilton custom-house . . . . .		244 35		244 35
do post office . . . . .		689 54		689 54
Kingston custom-house . . . . .		998 13		998 13
do immigrant building (rent) . . . . .		15 13	2 37	17 50
do military college . . . . .		6 90		6 90
do post office . . . . .		1,200 42		1,200 42
Lindsay do . . . . .		189 00		189 00
London custom-house . . . . .		1,629 72		1,629 72
do immigrant building . . . . .		12 00		12 00
do post office . . . . .		1,600 65		1,600 65
Lucan do . . . . .		351 42		351 42
Napanee do . . . . .		61 52		61 52
Orangeville do . . . . .		99 52		99 52
Orillia do &c. . . . .	4,279 25			4,279 25
Ottawa—Bank of Ottawa building (rent) . . . . .			2,720 00	2,720 00
do do (lighting) . . . . .			41 27	41 27
do canal office . . . . .		50 38		50 38
do central chambers (rent) . . . . .			200 00	200 00
do civil service examination office (rent) . . . . .			412 56	412 56
do examining warehouse (rent) . . . . .			850 00	850 00
do experimental farm . . . . .		3,907 40		3,907 40
do geological museum (rent) . . . . .		2,169 78	310 00	2,479 78
do do (lighting) . . . . .			654 45	654 45
do national art gallery, re-covering roof . . . . .		1,616 25	2,123 75	3,740 00
do post office . . . . .		822 09		822 09
do do (lighting) . . . . .			2,296 19	2,296 19
do printing bureau . . . . .		2,643 61		2,643 61
do do (lighting) . . . . .			966 50	966 50
do do engineer and firemen . . . . .			3,432 68	3,432 68
do public buildings . . . . .		103,088 39		103,088 39
do do electric light and gas . . . . .			16,394 70	16,394 70
do do grounds . . . . .			5,784 33	5,784 33
do do heating . . . . .			61,383 77	61,383 77
do do Langevin block . . . . .		4,862 28		4,862 28
do do do engineer and firemen . . . . .			10,675 63	10,675 63
do do do (lighting) . . . . .			1,235 55	1,235 55
do do do removal of snow . . . . .			400 00	400 00
do do Major's Hill park . . . . .			3,761 88	3,761 88
do do Parliament building — re- newal of boilers . . . . .	4,901 81			4,901 81
do do removal of snow . . . . .			1,532 39	1,532 39
do do Supreme Court (lighting) . . . . .		165 15	74 85	240 00
do do do (firemen, &c.) . . . . .			456 25	456 25
do do telephonic service . . . . .			4,179 43	4,179 43
Carried forward . . . . .	176,257 20	165,237 28	126,403 67	467,898 15

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>PUBLIC BUILDINGS—Continued.</b>				
Brought forward.....	176,257 20	165,237 28	126,403 67	467,898 15
<i>Ontario—Concluded.</i>				
Ottawa, public buildings, translators' rooms, Sussex street (rent).....			240 00	240 00
do do translators' rooms, Sussex street (lighting).....			37 05	37 05
do do water.....			15,102 78	15,102 78
do do workshops (rent, &c.).....			812 50	812 50
do do do (lighting).....			568 65	568 65
do do street and bridges (lighting).....			1,200 00	1,200 00
do Victoria Hall.....			14 40	14 40
Pembroke post office, &c.....		26 90		26 90
Peterborough custom-house—fencing, &c.....	300 00	2 00		302 00
do post office.....		194 48		194 48
Petrollea post office, &c.....	9,192 93			9,192 93
Point Edward immigrant building (rent).....			2 50	2 50
Port Arthur immigrant building.....		32 66		32 66
do post office, &c.....	3,159 33			3,159 33
Port Colborne do.....		36 98		36 98
Port Hope do.....		237 00		237 00
Prescott do.....		52 98		52 98
Public Buildings generally.....			1,960 09	1,960 09
Rideau Hall—heating apparatus, electric lighting, new dairy, &c.....	12,954 36	17,997 77		30,952 13
do fuel and light (allowance).....			8,000 00	8,000 00
do removal of snow.....			517 50	517 50
do caretakers.....			547 50	547 50
Smith's Falls post office, &c.....	14,328 07			14,328 07
Stratford do (temporary)—rent.....		519 34	600 00	1,119 34
do do to make good damage by fire.....	9,998 26			9,998 26
Strathroy do.....	215 00	20 85		235 85
St. Catharines do.....		843 12		843 12
St. Thomas do.....		424 14		424 14
Toronto—Assistant receiver general's office.....		382 12		382 12
do civil service examination office (rent).....			121 23	121 23
do custom house.....		502 66		502 66
do drill hall.....	32,479 95			32,479 95
do engineers' office (rent).....			252 12	252 12
do examining warehouse.....		1,553 79		1,553 79
do inland revenue office.....		177 17		177 17
do post office.....		1,363 69		1,363 69
Trenton post office, &c.....		184 72		184 72
Walkerton do.....		68 02		68 02
Windsor.....		158 78		158 78
<i>Manitoba.</i>				
Birtle immigrant shed.....		15 00		15 00
Brandon custom-house.....		397 84		397 84
do experimental farm.....		718 43		718 43
do immigrant shed.....		28 00		28 00
do industrial school.....	10,642 75			10,642 75
do post office.....		305 25		305 25
Portage la Prairie post office, &c.....	5,249 26			5,249 26
Public buildings generally.....			827 61	827 61
Winnipeg architect's office.....		189 33		189 33
do crown timber office.....		258 80		258 80
do custom-house.....		443 04		443 04
do Dominion lands office, &c.—heating apparatus, &c.....	2,368 00	342 40		2,710 40
do engineer's office (rent).....			481 50	481 50
Carried forward.....	277,145 11	192,714 54	157,689 10	627,548 75

# Department of Public Works

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
		\$ cts.	\$ cts.	\$ cts.
<b>PUBLIC BUILDINGS—Continued.</b>				
Brought forward.....	277,145 11	192,714 54	157,689 10	627,548 75
<i>Manitoba—Concluded.</i>				
Winnipeg examining warehouse .....		72 25		72 25
do immigrant shed.....		237 89		237 89
do Indian office.....		36 60		36 60
do inland revenue office.....		3 50		3 50
do military store-house.....		37 50		37 50
do post office.....		492 84		492 84
<i>North-west Territories.</i>				
Calgary court-house, &c .....		198 24		198 24
do immigrant building .....		150 82		150 82
do post office, custom-house, &c.....	8,009 24	30 56		8,039 80
Court houses generally.....			300 00	300 00
Edmonton immigrant building .....		188 00		188 00
do registry office, &c.....	2,009 12	55 90		2,065 02
Indian Head experimental farm .....		10 00		10 00
Lethbridge court-house.....		6 20		6 20
do custom-house and court-house.....	11,936 64			11,936 64
do do safe.....	506 25			506 25
do post office.....		0 40		0 40
Macleod court-house (rent).....	11 00	66 60	250 00	327 60
do custom-house.....		233 25		233 25
Maple Creek court-house.....	212 60			212 60
Moose Jaw do .....	604 20	38 50		642 70
Moosomin do addition, &c.....	1,819 78			1,819 78
Prince Albert do &c .....		686 15		686 15
do crown lands and timber agents' office.....	5,967 66			5,967 66
do registry office .....		1 88		1 88
Public buildings generally.....			1,245 96	1,245 96
Red Deer industrial school.....	782 00			782 00
Regina clerk of works office (rent) .....		38 50	25 00	63 50
do council chamber.....		203 11		203 11
do court-house.....		98 44		98 44
do do land and registry office.....	24,137 37			24,137 37
do Dominion lands office.....		1 70		1 70
do jail and lunatic asylum .....		36 45		36 45
do Lieut.-Governor's residence.....		3,256 86		3,256 86
do post office.....		193 32		193 32
Wolsley court-house .....	8,335 28			8,335 28
<i>British Columbia.</i>				
Agassiz experimental farm.....		1,204 80		1,204 80
Nanaimo post office.....		8 50		8 50
New Westminster custom-house.....		50 15		50 15
do Dominion lands office .....		102 35		102 35
do drill hall.....	39 85			39 85
do penitentiary—retaining wall.....	2 10			2 10
do post office.....		53 55		53 55
Public buildings generally.....			315 80	315 80
Vancouver post office, &c .....	1,259 13	969 02		2,228 15
Victoria appraiser's office .....		92 44		92 44
do custom-house .....		225 56		225 56
do drill hall and accessory buildings.....	2,998 46			2,998 46
do engineer's office (rent).....		25 58	938 00	963 58
do marine hospital.....		6 91		6 91
Carried forward.....	345,775 79	201,828 86	160,763 86	708,368 51

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
<b>PUBLIC BUILDINGS—Continued.</b>				
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	345,775 79	201,828 86	160,763 86	708,568 51
<i>British Columbia—Concluded.</i>				
Victoria post office (new).....	23,702 68			23,702 68
do do (old).....		494 73		494 73
do savings bank building.....		12 45		12 45
William's Head quarantine station—detention build- ings, &c.....	5,900 23			5,900 23
	375,378 70	202,336 04	160,763 86	738,478 60

EXPENDITURE ON ACCOUNT SERVICES MENTIONED.	Salaries of Engineers &c.	Supplies for En- gineers, &c.	Heating.	Lighting.	Water.	Total.
<i>Nova Scotia.</i>						
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Amherst post office.....	400 00	7 83	241 00	313 96	20 00	982 79
Annapolis do .....	400 00	6 00	171 64	108 48	40 00	726 12
Antigonish do .....	400 00	5 75	113 00	38 52	9 85	567 12
Arichat do .....			268 50			268 50
Baddeck do .....	200 00		90 00	22 22		312 22
Dartmouth do .....	249 96	0 70	108 47	82 42	16 00	437 55
Halifax Asst. Receiver General's Office.....			54 64	73 80	36 00	164 44
do Dominion building	2,018 00	14 73	870 69	4,176 85	945 47	8,025 74
do examining ware- house.....	500 00	1 75	99 55	91 60	130 55	823 45
do immigrant build'g.			132 35	495 82		628 17
Lunenburg post office			162 50			162 50
New Glasgow do .....	400 00	7 39	132 72	448 12	100 00	1,088 23
North Sydney do .....	400 00	1 32	150 50	399 00		950 82
Pictou custom-house .....	400 00	3 30	111 95	22 88		538 13
Sydney post office.....	400 00	32 52	206 20	71 34	20 00	730 06
Truro do .....	400 00	5 60	185 33	339 45	30 00	960 38
Windsor do .....	400 00		157 90	142 80	50 00	750 70
Yarmouth do &c.....	400 00		268 59	556 20	72 00	1,296 79
<i>Prince Edward Island.</i>						
Charlottetown Dominion building .....	1,737 46	120 17	480 28	1,022 65	225 00	3,585 56
Montague post office .....	160 00	14 09	44 80	26 50		245 39
Summerside do .....	400 00	10 64	418 69	16 56		845 89
<i>New Brunswick.</i>						
Bathurst post office, &c... ..	450 00	10 89	368 59	25 00		854 48
Carleton, St. John, post office, &c .....	100 00		45 02	150 00	13 00	308 02
Chatham post office, &c ..	159 00	9 88	375 73	83 70		628 31
Dalhousie do .....	400 00	3 80	205 19	22 70		631 69
Fredericton do .....	400 00	6 70	276 09	485 99	48 00	1,216 78
Moncton do .....	400 00	15 50	246 45	456 50	134 00	1,252 45
Newcastle do .....	400 00	47 47	368 32	364 80		1,180 59
Portland do .....		5 50	34 02			39 52
St. John custom-house ...	1,840 75	88 45	1,665 03	339 91	333 68	4,267 82
do penitentiary.....	225 00		27 13	5 00		257 13
do post office.....	1,340 00	12 00	607 72	3,971 25	426 73	6,357 70
Carried forward.....	14,980 17	431 98	8,688 59	14,354 02	2,650 28	41,105 04

# Department of Public Works.

## APPENDIX No. 1—Continued.

Name of Works.		Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.	
<b>PUBLIC BUILDINGS—Continued.</b>						
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Brought forward.....	375,378 70	202,336 04	160,763 86	738,478 60		
<b>EXPENDITURE ON ACCOUNT SERVICES MENTIONED—Continued.</b>						
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Brought forward....	14,980 17	431 98	8,688 59	14,351 02	2,650 28	41,105 04
<i>New Brunswick—Con.</i>						
St. John savings bank.....			251 01	108 56	17 50	377 07
St. Stephen's post office, &c.....	400 00	10 15	151 40	488 10	64 00	1,113 65
Sussex post office, &c.....	400 00	8 02	170 66	8 51		587 19
Woodstock post office, &c.....	414 63	5 40	242 75	160 00	34 00	856 78
<i>Quebec.</i>						
Aylmer post office.....	88 34	2 19	178 41	43 05		311 99
Coaticook post office.....	400 00	15 75	238 25	252 25	40 00	946 25
Hull post office, &c.....	150 00	2 50	292 76	347 00	112 00	904 26
Joliette post office, &c.....	400 00	7 36	227 43	72 00	108 00	814 79
Lachine post office.....	99 99	23 49	135 72	87 97	31 52	378 69
Laprairie post office.....	19 50	18 35	148 58	42 90	40 00	269 33
Lévis immigrant building.....			74 12			74 12
Montreal custom-house.....	1,701 00	49 00	730 32	547 99	332 71	3,361 02
do Dominion public buildings.....	1,650 00					1,650 00
do drill hall.....	456 00					456 00
do examining warehouse.....	1,140 00	437 61	1,850 68	721 62	585 97	4,735 88
do Inland Revenue office.....	600 00		256 32	248 50	106 70	1,211 52
do post office.....	4,419 95	49 81	864 74	7,091 80	2,154 31	14,580 61
Quebec citadel buildings.....	72 75		162 25	229 43		464 43
do clerk of works office.....	48 00					48 00
do cullers' office.....	540 00		300 65			840 65
do custom-house.....	540 00	2 95	815 35	59 12		1,417 42
do Dominion public buildings.....					59 05	59 05
do examining warehouse.....	1,415 00	79 66	1,038 53	47 62		2,580 81
do immigrant building.....			300 28	624 00		924 28
do observatory.....					42 79	42 79
do post office.....	342 00	1 25	592 67	990 24		1,926 16
do quarantine station building, Louise embankment.....			4 55			4 55
do Queen's wharf building.....			267 50			267 50
Rivière du Loup (Fraser-ville) post office.....	250 00	3 28	410 00	29 90		693 18
Sherbrooke post office, &c.....	430 00	29 61	324 00	678 40	62 50	1,524 51
Sorel do.....	450 00	38 56	183 15	216 00	250 00	1,137 71
St. Henri do.....			214 47	29 97	25 27	269 71
St. Hyacinthe do.....	300 00	57 73	243 82	272 35	150 00	1,023 90
St. Jérôme do.....	400 00		392 94	192 00	57 00	1,041 94
Carried forward.....	32,107 33	1,274 65	19,751 90	27,943 30	6,923 60	88,000 78
			9			738,478 60

## APPENDIX No. 1—Continued.

Name of Works.		Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.		
PUBLIC BUILDINGS—Continued.		\$ cts.	\$ cts.	\$ cts.	\$ cts.		
Brought forward.....		375,378 70	202,336 04	168,763 86	738,478 60		
EXPENDITURE ON ACCOUNT SERVICES MEN- TIONED—Continued.	Salaries of Engineers, &c.	Supplies for En- gineers, &c.	Heating.	Lighting.	Water.	Total.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Brought forward.....		32,107 33	1,274 65	19,751 90	27,943 30	6,923 60	88,000 78
<i>Quebec—Concluded.</i>							
St. John's post office....	350 00		173 25	312 50	40 00	875 75	
St. Roch, Que. do.....			68 00			68 00	
St. Vincent de Paul Peni- tentiary.....			616 50			616 50	
Three Rivers custom-house do post office....	600 00 400 00	8 56	412 97 222 50	189 16 205 15	105 00 90 00	1,315 69 917 65	
Valleyfield post office....			50 24	27 60	9 00	86 84	
West Farnham post office.....			51 38	27 75	7 50	86 63	
<i>Ontario.</i>							
Almonte post office, &c....	400 00	12 49	167 00	36 71	75 00	691 11	
Amherstburg post office, &c.	400 00	10 80	180 00	121 10	22 50	734 40	
Barrie post office, &c....	400 00	1 50	254 00	250 00	50 00	955 50	
Belleville do.....	600 00	17 40	394 50	548 80	83 25	1,643 95	
Berlin do.....	400 00	7 55	209 86	274 60	66 00	958 01	
Brampton post office, &c....	400 00	20 50	176 00	210 96	19 25	826 71	
Brantford do.....	600 00	19 50	285 80	325 65	30 40	1,261 35	
Brockville do.....	400 00	21 36	320 30	674 20	170 00	1,585 86	
Carleton Place do.....	300 00	8 20	100 10	41 40		449 70	
Cayuga do.....	50 00	6 25	4 25			60 50	
Chatham do.....	850 00	16 75	162 46	411 60	57 00	1,497 81	
Clifton do.....	400 00	17 70	247 05	406 25	47 50	1,118 50	
Cobourg do.....	400 00		193 62	283 70	68 25	945 57	
Cornwall do.....	475 00	9 28	269 50	513 58	73 00	1,340 36	
Dundas do.....			21 00	75 04		96 04	
Galt do.....	400 00		151 90	363 70	39 00	954 60	
Gananoque custom-house. do post office.....		2 75	137 20 78 40	94 00 141 00		231 20 222 15	
Goderich do.....	400 00	25 88	214 49	20 09	60 00	720 46	
Guelph do.....	400 00	8 38	189 79	273 88	46 80	918 85	
Hamilton custom-house. do drill shed.....	600 00 360 00	2 58		78 10		680 68 360 00	
do post office.....	890 48	36 55	927 25	2,048 70	1,000 00	4,902 98	
Kingston custom-house. do exam. warehouse do inland revenue office.....	73 60		335 89 17 85	121 20	70 80 12 00	601 49 29 85	
do military college. do post office.....	1,440 00 84 80			56 60	71 98	128 58 1,440 00	
Lindsay do.....	400 00	2 85	143 85	504 60	56 26	790 76	
London custom-house. do post office.....	1,000 00 600 00	5 00 5 70	622 46 566 79	446 65 976 61	175 00 80 00	2,249 11 2,229 10	
Napanee do.....	450 00	17 49	199 50	183 48	69 45	919 92	
Orangeville do.....	400 00	4 10	124 71	70 50		599 31	
Orillia do.....	349 92	0 35	212 57	20 30	40 00	623 14	
Ottawa experimental farm.....			1,042 45		408 00	1,450 45	
Carried forward.....	47,381 13	1,565 28	29,422 84	38,353 46	10,082 23	126,804 94	738,478 60



# Department of Public Works.

## APPENDIX No. 1—Continued.

Name of Works.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
<b>PUBLIC BUILDINGS—Continued.</b>						
Brought forward.....	375,378 70	202,336 04	168,763 86	738,478 60		
<b>EXPENDITURE ON ACCOUNT SERVICES MENTIONED—Continued.</b>	Salaries of Engineers, &c.	Supplies for Engineers, &c.	Heating.	Lighting.	Water.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward ....	47,381 13	1,565 28	29,422 84	38,353 46	10,082 23	126,804 94
<i>Ontario—Concluded.</i>						
Pembroke post office.....	400 00	4 12	149 03	280 50	28 00	861 65
Peterboro' custom-house..			133 75	39 30	131 25	304 30
do post office....	500 00	5 25	202 00	519 00	93 75	1,320 00
Petrolia do .....	399 98	14 33	185 90	28 04	6 25	634 50
Port Arthur post office...	300 00	4 40	249 42	4 50	3 60	561 92
Port Colborne do .....	240 00	9 65		131 00		380 65
Port Hope do .....	400 00	11 95	220 00	291 10		923 05
Prescott custom-house....			78 75			78 75
do post office.....	500 00	14 58	198 25	168 21		881 04
Smith's Falls post office..		1 25				1 25
Stratford post office, &c..	650 00	20 90	445 41	268 36	91 00	1,475 67
Strathroy do .....	400 00	6 70	130 00	23 75	3 00	563 45
St. Catharines do .....	400 00	15 92	250 45	332 43	71 25	1,070 05
St. Thomas do .....	400 00	34 40	312 00	558 60	25 28	1,330 28
Trenton do .....	450 00	18 15	150 00	256 00	75 00	949 15
Toronto custom-house....	550 00	40 67	266 82	156 52	97 38	1,111 39
do Dominion public buildings.....	1,100 00					1,100 00
do drill hall.....	758 05	17 35	715 98	58 74		1,550 12
Toronto examining warehouse.....	3,471 00	41 10	658 49	88 70	137 41	4,396 70
Toronto inland revenue office.....	598 33		260 20	299 55	34 80	1,192 88
Toronto post office.....	1,000 80	5 98	680 61	2,826 71	328 43	4,842 53
Walkerton post office, &c.	400 00	5 90	208 18	346 88	20 00	980 96
Windsor post office, &c....	1,000 00	8 00	452 30	786 96	120 00	2,367 26
<i>Manitoba.</i>						
Brandon Dominion lands office.....				72 00		72 00
Brandon custom-house....				48 00		48 00
do experimental farm .....			147 20			147 20
do immigrant building.....			66 50			66 50
do industrial school.....			116 40			116 40
do inland revenue office.....				48 00		48 00
do post office.....	480 00	57 70	621 25	423 05	76 00	1,658 00
Minnedosa Dominion lands office.....			84 72			84 72
Winnipeg Crown timber office.....		3 00	216 00			219 00
Winnipeg custom-house....			555 00	302 94	72 00	929 94
do Dominion lands office.....			8 50	45 90	22 50	76 90
Carried forward.....	61,779 29	1,906 58	37,185 95	46,758 20	11,519 13	159,149 15
			11			738,478 60

APPENDIX No. 1—Continued.

Name of Works.		Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.		
PUBLIC BUILDINGS—Continued.		\$ cts.	\$ cts.	\$ cts.	\$ cts.		
Brought forward .....		375,378 70	202,336 04	160,763 86	738,478 60		
EXPENDITURE ON ACCOUNT SERVICES MENTIONED—Continued.	Salaries of Engineers &c.	Supplies for Engineers, &c.	Heating.	Lighting.	Water.	Total.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Brought forward .....		61,779 29	1,906 58	37,185 95	46,758 20	11,519 13	159,149 15
<i>Manitoba—Concluded.</i>							
Winnipeg engineer's office .....			15 00			15 00	
do examining ware-house .....			501 80	7 83		509 63	
do immigrant shed .....		0 90	341 80	327 51	93 75	763 96	
do Indian office .....			219 60			219 60	
do post office .....		2,370 00	145 58	2,797 50	1,418 85	275 00	7,006 93
<i>North-west Territories.</i>							
Battleford Dominion lands office .....			65 00			65 00	
Calgary barracks .....					600 00	600 00	
do clerk of works office .....			25 20			25 20	
do court-house, &c. ....			39 25		300 00	607 99	
do immigrant building .....			383 85			383 85	
do post office .....		360 00	36 55	598 14	427 60	269 15	1,691 44
do registry office .....			12 60	75 00			87 60
Edmonton Dominion lands office .....			56 50	103 05			159 55
Edmonton immigrant bldg do land and registry office .....		329 00	15 05	110 00	43 65		108 00
Estevan Dominion lands office .....			49 00				497 70
Indian Head experimental farm .....			184 85				49 00
Lethbridge court-house .....		179 66		87 75	12 50		184 85
do post office .....			48 65		15 00		279 91
Macleod court-house .....		160 39	24 50	42 00			63 65
Medicine Hat court-house .....			11 25				226 89
Moosomin court-house .....		471 70	50 90	255 30	41 88		11 25
Moose Jaw court-house .....		308 57	4 90	138 75			819 78
do post office .....					2 00		452 22
Prince Albert barracks .....					953 48		2 00
do court-house, &c. ....		366 67	42 92	351 63	43 75	4 00	953 48
Prince Albert Registry office .....		366 65	10 05	76 00	8 00		808 97
Red Deer Dominion Lands office .....				72 00			460 70
Regina court-house .....			38 75	992 28	16 70	31 40	72 00
do Dominion lands office .....					56 85		1,079 13
do Lieut. Governor's residence .....			1 50				56 85
Carried forward .....		66,691 93	2,389 93	45,001 64	50,221 85	13,107 43	177,412 78
				12			738,478 60

# Department of Public Works.

## APPENDIX No. 1—Continued.

Name of Works.		Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.	
<b>PUBLIC BUILDINGS—Concluded.</b>						
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Brought forward .....	375,378 70	202,336 04	160,763 86	738,478 60		
<b>EXPENDITURE ON ACCOUNT SERVICE MEN- TIONED—Concluded.</b>	<b>Salaries of Engineers &amp;c.</b>	<b>Supplies for En- gineers, &amp;c.</b>	<b>Heating.</b>	<b>Lighting.</b>	<b>Water.</b>	<b>Total.</b>
	\$ cts.	& cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward .....	66,691 93	2,389 93	45,001 64	50,221 85	13,107 43	177,412 78
<i>N.-W. Territories—Con.</i>						
Regina post office .....		4 25	248 80			253 05
do registry office .....			182 80			182 80
Yorkton Dominion lands office .....			89 80			89 80
Wetaskiwin Dominion lands office .....			47 55			47 55
Whitewood Immigrant building .....			59 75			59 75
Wolseley court-house .....			179 15			179 15
<i>British Columbia</i>						
Agassiz Experiment farm .....			57 00			57 00
Bella Bella Indian office .....			27 00			27 00
Metlakatla Indian office .....			122 00			122 00
do Indian school .....			136 50			136 50
Nanaimo post office .....	500 00	4 80	105 00	250 45	36 00	896 25
New Westminster post office .....	500 00		67 70	193 00	125 14	885 84
Quamichan Indian office .....			16 00			16 00
Vancouver post office .....	333 30	84 43	666 92	1,059 95	320 05	2,464 65
Victoria do .....	500 00	45 05	204 82	914 65	31 35	1,695 87
do custom-house .....			146 57	48 15	26 49	221 21
do barracks .....			22 62			22 62
do appraiser's office .....			26 52	12 75	18 00	57 27
do drill-hall .....		5 69	185 30	633 26		824 25
do engineer's office .....				12 75		12 75
do Indian school .....			8 05	6 80		14 85
do do office .....			45 86			45 86
do Marine hospital .....			8 00			8 00
do Weights & Meas- ures office .....			38 47		18 00	56 47
William's Head Quar- antine station .....			526 33			526 33
British Columbia generally .....		2 93				2 93
Dominion Buildings gen- erally .....			1,649 71			1,649 71
Totals .....	68,525 23	2,537 08	49,869 86	53,353 61	13,682 46	187,968 24
Carried forward .....			375,378 70	202,336 04	348,732 10	926,446 84

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	375,378 70	202,336 04	348,732 10	926,446 84
<b>HARBOURS AND BREAKWATERS, &amp;c.</b>				
<i>Nova Scotia.</i>				
Babin's Cove.....	2,160 97			2,160 97
Bass River—pile wharf.....	3,059 34			3,059 34
Bayfield wharf (new).....	5,785 19			5,785 19
Bear Trap wharf.....		40 00		40 00
Blanche harbour.....		299 76		299 76
Blue Rock breakwater.....		497 57		497 57
Boularderie Island wharf (Monday Point).....	2,833 00			2,833 00
do Ross Ferry.....	34 15			34 15
Broad Cove breakwater.....		499 99		499 99
do Marsh breakwater.....		500 00		500 00
Cape St. Mary wharf.....		439 88		439 88
Jariboo Island wharf (Pictou County).....	299 38			299 38
Church Point wharf.....		346 59		346 59
Cow Bay breakwater.....		4,289 45		4,289 45
Cribbin's Point wharf.....		279 91		279 91
D'Escousse wharf.....	970 00			970 00
Devil's Island wharf.....		100 00		100 00
Digby pier.....		105 50		105 50
Grand Etang.....	15,998 25			15,998 25
Great Village wharf.....		450 26		450 26
Halifax graving dock (subsidy).....	10,000 00			10,000 00
Harbours generally.....			2,417 11	2,417 11
Harbourville wharf.....		110 71		110 71
Hiltz Narrow wharf.....		60 00		60 00
Ingonish South, breakwater, land expropriated.....	635 88			635 88
do do closing up trench, &c.....		1,364 01		1,364 01
L'Ardoise do.....		4,293 87		4,293 87
Little Harbour do.....		239 90		239 90
Louis Head do.....	1,002 00			1,002 00
Margaree do.....		1,445 82		1,445 82
Margaretville pier.....		494 07		494 07
Meagher's Beach.....	419 96			419 96
McNair's Cove pier.....		872 31		872 31
do harbour—to secure facilities for fisher- men, &c.....	400 00			400 00
Monk's Head, cutting channel from lake to Antigon- ish harbour.....	516 85			516 85
Nyanza wharf.....	1,654 56			1,654 56
Parrsboro' wharf.....		1,502 49		1,502 49
Pictou harbour.....	300 00			300 00
Pictou Island beach.....	180 19			180 19
Port George pier.....		1,398 16		1,398 16
Port Medway breakwater.....		350 80		350 80
Port Mouton do.....		817 62		817 62
Roseway.....		50 10		50 10
South Gut wharf.....		11 88		11 88
Three Fathom harbour.....		150 00		150 00
Three Islands Cove.....		200 00		200 00
West Arichat.....		6 55		6 55
Whitehaven channel.....	1,490 93			1,490 93
Yarmouth harbour, dredging, &c.....	5,998 23			5,998 23
Carried forward.....	429,117 58	223,553 24	351,149 21	1,003,820 03

# Department of Public Works.

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Improve- ments.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>HARBOURS AND BREAKWATERS—Con.</b>				
Brought forward.....	429,117 58	223,553 24	351,149 71	1,003,820 03
<i>Prince Edward Island.</i>				
Bay Fortune harbour.....	750 00			750 00
Bay View harbour.....		21 75		21 75
Big Miminigash wharf.....		2 00		2 00
Campbell's Cove breakwater—re-construction.....	1,020 62			1,020 62
Cascumpec wharf.....		36 00		36 00
Chapel Point pier.....		4 00		4 00
Church Point pier.....		503 92		503 92
Georgetown pier.....		150 00		150 00
Harbours generally.....			2,425 60	2,425 60
Hurd's Point pier.....		201 87		201 87
Kier's Shore wharf—extension.....	2,587 95			2,587 95
Lambert pier.....		92 50		92 50
Miminigash pier.....		508 38		508 38
New London breakwater.....		624 08		624 08
North Cardigan pier.....		6 20		6 20
North Rustico breakwater.....		1,287 83		1,287 83
Pinette pier.....		100 00		100 00
Port Selkirk pier.....		10 75		10 75
Souris breakwater—reconstruction.....	3,707 60			3,707 60
Stephen's pier.....		92 60		92 60
St. Mary's Bay pier.....		499 98		499 98
St. Peter's Bay pier.....		2 82		2 82
Wood Islands breakwaters.....		8,940 00		8,940 00
<i>New Brunswick.</i>				
Buctouche wharf.....		1,500 00		1,500 00
Burnt Church wharf.....	107 03			107 03
Campbellton Ferry landing.....	136 00			136 00
Cape Tormentine breakwater.....		577 12		577 12
Gardner's Creek wharf (new).....	123 15			123 15
Harbours generally.....			2,417 10	2,417 10
Hopewell Cape wharf.....		789 60		789 60
Partridge Island quarantine wharf.....	5 25			5 25
River St. John—Upper river.....	\$1,913 25			
Grand Falls.....	580 69			
Kier's wharf—Govt. grant.....	266 00			
Spring Hill.....	1,355 50			
Tobique.....	300 00			
	4,415 44			4,415 44
Oromocto—protection of banks of.....				
Oromocto and Thatch Islands.....	2,235 80			2,235 80
Shediac harbour—new breakwater for protection of.....				
Intercolonial Ry. wharf at Point du Chêne.....	21,010 35			21,010 35
St. John Harbour—Negro Point breakwater.....	3,333 71			3,333 71
Tynemouth Creek wharf.....		225 00		225 00
West Quaco harbour—repairs to dam.....		399 81		399 81
<i>Quebec.</i>				
Baie des Pères, Lake Temiscamingue—pier.....		945 63		945 63
Baie St. Paul—Wharf at Cap aux corbeaux.....	2,389 77			2,389 77
do —Isolated block.....		1,488 90		1,488 90
Beloeil booms and piers.....			120 00	120 00
Berthier (en bas) pier.....		7 45		7 45
Cacouna pier extension.....	2,017 34			2,017 34
Cap de la Madeleine—wharf addition.....	2,798 85			2,798 85
Chicoutimi wharf.....		1,993 27		1,993 27
Carried forward.....	475,756 44	244,564 70	356,111 91	1,076,433 05

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and In- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>HARBOURS AND BREAKWATERS—Con.</b>				
Brought forward. ....	475,756 44	244,564 70	356,111 91	1,076,433 05
<i>Quebec—Concluded.</i>				
Coteau du Lac pier. ....		249 99		249 99
Etang du Nord breakwater. ....		1,799 90		1,799 90
Gatineau pier. ....		2 39		2 39
do river. ....	1,288 10			1,288 10
Grand Pabos. ....	1,558 99			1,558 99
Grande Décharge wharf—Lake St. John. ....	400 00			400 00
Grande Rivière wharf—extension. ....	3,284 33			3,284 33
Harbours generally. ....			1,790 41	1,790 41
Isle aux Grues pier. ....		45 55		45 55
Isle Verte pier. ....		903 02		903 02
Lacolle wharf. ....		737 34		737 34
Laprairie ice piers. ....	2,554 95			2,554 95
Lévis graving dock. ....			8,321 62	8,321 62
Longueuil pier—widening. ....	4,214 19			4,214 19
Lower St. Lawrence, landing places for fishing boats—				
Anse à Louise. ....	\$547 23			
Anse aux Griffons. ....	364 43			
Petit Cap. ....	97 90			
Pointe Jaune. ....	762 31			
Rivière au Renard. ....	228 06			
	1,999 93			1,999 93
Magog wharf, purchase of. ....	2,500 00			2,500 00
Malbaie pier. ....		175 69		175 69
Matane do. ....		975 13		975 13
Mistassini river. ....	500 00			500 00
New Carlisle pier. ....		111 15		111 15
Petite Rivière St. François. ....	101 00			101 00
Philipsburg pier. ....	165 94			165 94
Piers below Quebec. ....			3,699 02	3,699 02
Pointe aux Esquimaux wharf. ....	614 80			614 80
do St. Pierre harbour. ....	7 20			7 20
Port Daniel wharf. ....		998 54		998 54
Quebec Queen's wharf. ....		58 47		58 47
Rimouski wharf—extension. ....	51 23			51 23
Rivière des Prairies. ....	347 70			347 70
do du Lièvre—claim for damages. ....	3,756 04	267 70	840 34	4,864 08
do du Sud at St. Thomas de Montigny. ....	4,999 50			4,999 50
do Grandes Bergeronnes. ....	299 94			299 94
do L'Assomption. ....	50 12			50 12
do Mackinac. ....	1,251 00			1,251 00
do Richelieu—Belœil channel guide piers. ....	144 79			144 79
do Saguenay—dredging below Chicoutimi. ....	5,998 64			5,998 64
do Ste. Anne de la Pérade. ....	14,906 05			14,906 05
do St. Lawrence—ship channel between Quebec and Montreal. ....	89,929 81			89,929 81
do St. Louis—head gates. ....			125 00	125 00
do St. Maurice—channel between Grandes Piles and Latuque. ....	1,721 50			1,721 50
do Touladié. ....	387 43			387 43
do Yamaska lock. ....		407 80	620 30	1,028 10
Roberval pier, Lake St. John. ....	4,200 31			4,200 31
St. Irénée pier. ....	21 50			21 50
St. Jean pier, Ile d'Orléans. ....		6,005 22		6,005 22
St. Laurent pier do. ....		56 00		56 00
St. Michel pier. ....		802 23		802 23
St. Zotique pier. ....		1,599 85		1,599 85
Trois-Pistoles pier. ....		999 00		999 00
Carried forward. ....	623,011 43	260,759 67	371,508 60	1,255,279 70

# Department of Public Works.

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>HARBOURS AND BREAKWATERS—Con.</b>				
Brought forward.....	623,011 43	260,759 67	371,508 60	1,255,279 70
<i>Ontario.</i>				
Belleville harbour.....	2,989 48			2,989 48
Burlington channel.....		870 02	699 96	1,499 98
Cobourg harbour.....		998 96		998 96
Collingwood harbour.....		30 00		30 00
Colpo's Bay pier.....		200 00		200 00
Dyer's Bay wharf.....	3,219 15			3,219 15
Goderich harbour—extension of piers, &c.....	22,710 75			22,710 75
Hamilton harbour—dredging.....	2,102 96			2,102 96
Honara Bay—survey for location of wharf.....	81 50			81 50
Harbours generally.....			1,858 91	1,858 91
Kaministiquia river.....	13,311 96			13,311 96
Kingston dry dock.....			5,939 51	5,939 51
do harbour.....	5,770 84			5,770 84
Kingsville do.....		394 88		394 88
Lakes Simcoe and Couchiching—regulation of waters.....	117 43			117 43
Owen Sound harbour—dredging and improvements.....	15,103 44			15,103 44
Port Albert—extension of piers and dredging.....	9,131 18			9,131 18
Port Arthur—dredging.....	1,500 00			1,500 00
do repairs to breakwater.....		420 61		420 61
Port Elgin harbour.....		29 50		29 50
Port Hope harbour—repairs to piers.....		2,490 77		2,490 77
Port Rowan wharf.....	2,136 35			2,136 35
Port Stanley harbour—dredging.....	929 71			929 71
Rainy river.....	74 99			74 99
River Beaudette—cleaning out channel.....	2,994 21			2,994 21
River Ottawa—narrows above Pembroke.....	459 24			459 24
Rondeau harbour.....		360 18		360 18
Sault Ste. Marie wharf—repairs.....		297 00		297 00
Southampton harbour—repairs to breakwaters and landing pier.....		276 86		276 86
Thessalon wharf (new).....	204 71			204 71
Thornbury harbour.....		2,498 15		2,498 15
Toronto harbour—eastern entrance, &c.....	52,161 76			52,161 76
Trenton do dredging.....	1,990 42			1,990 42
<i>Manitoba.</i>				
Harbours generally.....			597 48	597 48
Hnausa wharf—Lake Winnipeg.....	1,311 26			1,311 26
<i>North-west Territories.</i>				
Harbours generally.....			353 55	353 55
<i>British Columbia.</i>				
Columbia river, above Golden—improvements.....	3,942 88			
do at do protection of river banks.....	500 00			
do below Revelstoke.....	172 70			
do protection of bank at Revelstoke and vicinity.....	7,010 84			
do below Kooteney—improvements.....	2,347 57			
Esquimalt graving dock.....			10,419 76	10,419 76
Fraser river—improvement of channel.....	29,803 28			
do protection work at Garry Bush.....	2,999 91			
do survey.....	5,014 17			
Harbours generally.....			2,822 75	2,822 75
Kootenay (east) river—improvements between canal flat and Fort Steele.....	4,635 66			4,635 66
Carried forward.....	817,739 78	269,556 60	394,200 52	1,481,496 90

## APPENDIX No. 1—Continued..

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>HARBOURS AND BREAKWATERS—Con.</b>				
Brought forward.....	817,739 78	269,556 60	394,200 52	1,481,496 90
<i>British Columbia—Concluded.</i>				
Skeena river.....	3,980 64			3,980 64
Victoria harbour—(inner) dredging.....	9,974 65			9,974 65
<b>HARBOURS GENERALLY.....</b>			3,102 52	3,102 52
Dredge vessels, repairs.....		31,173 78		31,173 78
do Maritime Provinces.....	22,427 87			22,427 87
Dredging plant generally.....	48,751 46			48,751 46
<b>DREDGING.</b>				
(REFERENCE No. 165,887.)				
<i>Nova Scotia.</i>				
Cheticamp (Inverness).....	\$ 1,801 85			
D'Escousse (Richmond).....	605 75			
Eastern passage (Halifax).....	522 89			
Herring Cove (Halifax).....	3,533 96			
Mabou Harbour (Inverness).....	2,064 08			
Pictou (Pictou):—				
Acadia Coal Co.'s				
wharf.....	\$ 151 43			
Dwyer's wharf.....	286 04			
	437 47			
Poulamond (Richmond).....	1,884 55			
Salmon River (Halifax).....	2,841 81			
Sambro (Halifax Cty.).....	1,216 29			
Spry Bay.....	2,694 04			
	\$17,602 69			
<i>Prince Edward Island.</i>				
Cardigan (King's).....	\$ 4,546 50			
Grand River (King's).....	4,702 38			
				9,248 88
<i>New Brunswick.</i>				
Pointe du Chêne (Westmoreland).....	\$ 5,579 34			
Moses Glen (King's).....	1,568 83			
St. John River:—				
Oromocto (Sunbury).....	\$4,725 74			
Fisher and Chestnut				
shoals (York).....	1,261 22			
	5,986 96			
				13,135 13
<b>Total, Maritime Provinces.....</b>	<b>\$39,986 70</b>			
<i>Quebec.</i>				
Berthier ( <i>en haut</i> ) harbour.....	\$ 5,538 75			
Charlemagne (L'Assomption				
River).....	529 65			
Chateauguay river.....	932 49			
Dorval harbour.....	1,512 42			
Louiseville.....	468 52			
Quebec Princess Louise basin...	4,115 36			
Rivière Nicolet.....	72 17			
<b>Carried forward.</b>	<b>13,169 36</b>	<b>39,986 70</b>	<b>902,874 40</b>	<b>300,730 38</b>
				<b>397,303 04</b>
				<b>1,600,907 82</b>



# Department of Public Works.

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
<b>DREDGING—Concluded.</b>				
Brought forward.....	\$39,986 70	902,874 40	300,730 38	397,303 04
<b>Quebec—Concluded.</b>				
Brought forward.....	13,169 36			
Rivière St. Laurent, Ile Gros Bois .....	382 66			
Rivière St. Pierre. ....	1,085 15			
St. Placide harbour.....	1,438 66			
	<u>\$16,075 86</u>			
GENERALLY.....	1,731 15			
	<u>\$20,807 01</u>			
<i>Ontario.</i>				
Anherstburg harbour	\$3,337 05			
Collingwood do .	1,324 54			
Goderich do .	928 21			
Kincardine do .	3,195 83			
Kingsville do .	571 58			
Midland do .	2,252 65			
Oakville do .	1,461 51			
Penetang'hene do .	445 50			
Pickering do .	709 83			
Port Arthur do .	51 00			
Port Elgin do .	1,015 89			
Port Hope do .	96 59			
Trenton do .	186 18			
Whitby do .	197 50			
Wingfield basin.....	1,536 00			
	<u>\$17,309 86</u>			
GENERALLY.....	2,621 34			
	<u>19,931 20</u>			
	40,738 21			
<i>Manitoba.</i>				
Red river .....	\$ 9,017 22			
White Mud river .....	940 11			
	<u>9,957 33</u>			
<i>British Columbia.</i>				
Fraser river.....	\$ 4,742 56			
Victoria harbour—inner .....	10,232 52			
	<u>14,975 08</u>			
General service.....	5,912 38			
Total dredging.....	98,304 83		13,264 87	111,569 70
<b>SLIDES AND BOOMS.</b>				
Saguenay District—piers at discharge from Lake St. John.....	2,000 00	1,990 94	942 29	4,933 23
St. Maurice District .....	1,992 33	1,542 83	6,854 66	10,389 82
Ottawa do .....			24,307 86	24,307 86
Ottawa river slides .....	\$ 4,604 63			
Gatineau do .....	513 27			
Madawaska do .....	6,994 03			
Coulonge do .....	1,106 51			
Black do .....	10 50			
Petewawa do .....	203 31	5,803 73		5,803 73
Carried forward .....	1,010,975 29	317,696 40	442,672 72	1,771,344 41

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>SLIDES AND BOOMS—Concluded.</b>				
Brought forward.....	1,010,975 29	317,696 40	442,672 72	1,771,344 41
Trent District.....		5,170 29	2,023 25	7,193 54
<b>ROADS AND BRIDGES.</b>				
<i>Quebec.</i>				
Cartier bridge, river St. Louis.....	1,017 27			1,017 27
Petit Canal bridge.....	175 74			175 74
Pond Creek bridge, Hull.....	2,950 86			2,950 86
Portage du Fort bridge.....	1,897 48			1,897 48
<i>Ontario.</i>				
Burlington channel—swing bridge.....	1,371 93			1,371 93
Des Joachims bridge—repairs.....		34 00		34 00
Ottawa City bridges:—				
Chaudière bridges.....	\$2,751 64			
Hull slide bridge.....	102 05			
Maria street do.....	142 44			
Sappers' do.....	463 64			
Union do.....	342 75			
Wellington street.....	2,189 68			
Roadway between Ottawa and Hull....	487 74			
York bridge.....		6,479 94		6,479 94
		300 00		300 00
<i>North-west Territories.</i>				
Battle river bridge.....	2 08			2 08
Belley do.....		3,342 35		3,342 35
Bow do.....		110 99		110 99
Edmonton—bridges across the Saskatchewan.....	695 23			695 23
Old Man's river bridge.....		851 86		851 86
<b>TELEGRAPH LINES.</b>				
<i>Nova Scotia.</i>				
Cape Sable.....	\$ 688 45			
Cheticamp.....	777 86			
Low Point.....	50 00			
Meat Cove.....	2,075 60			
	\$ 3,591 91			
<i>Prince Edward Island.</i>				
Prince Edward Island and Mainland—(subsidiy).....			1,946 66	1,946 66
<i>New Brunswick.</i>				
Bay of Fundy.....	\$ 3,015 32			
Escuminac.....	656 32			
Grand Manan.....	2,500 00			
	\$ 6,171 64			
Carried forward.....	\$ 9,763 55	1,019,085 88	333,985 83	446,642 63
				1,799,714 34

# Department of Public Works

## APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>TELEGRAPH LINES—Continued.</b>				
Brought forward. . . . .	\$ 9,763 55	1,019,085 88	333,985 83	446,642 63
<i>Quebec.</i>				
Anticosti Island. . . . .	\$ 2,277 04			
Grosse Ile quarantine station. . . . .	1,068 92			
Magdalen Islands. . . . .	2,311 68			
North Shore :—				
East Bersimis. . . \$ 5,088 75	1,375 03	1,291 87		2,666 90
West do . . . 3,721 40	500 00			500 00
	8,801 15			
	\$ 14,458 79			
<i>Newfoundland.</i>				
Cape Rae. . . . .	250 00			
GENERALLY. . . . .	338 16			
Total, Lower St. Lawrence, &c. . . . .			24,810 50	24,810 50
Str. "Newfield,"—renewal of appliances on board of. . . . .			330 00	330 00
<i>Ontario.</i>				
Pelée Island. . . . .			1,603 79	1,603 79
<i>North-west Territories.</i>				
Lethbridge and Cardston telephone line and extensions	1,716 30			1,716 30
GENERALLY. . . . .			14,139 42	14,139 42
<i>British Columbia.</i>				
Ashcroft-Barkerville line. . . . .		931 03		931 03
French Creek to Alberni canal. . . . .	2,614 95			2,614 95
Lillooet—Connection with Ashcroft-Barkerville line. . . . .	783 50			783 50
GENERALLY. . . . .			9,994 82	9,994 82
TELEGRAPH SERVICE GENERALLY. . . . .			1,108 33	1,108 33
<b>MISCELLANEOUS.</b>				
Agent and contingencies, B.C. . . . .			2,131 61	2,131 61
Surveys and inspections. . . . .			11,099 94	11,099 94
Monuments to: the late Sir John A. Macdonald. . . . .	12,699 86			12,699 86
Maisonneuve—Govt. Grant . . . . .	1,000 00			1,000 00
Extra clerks—Secretary's branch. . . . .	\$29,646 03			
Chief Engineer's Office. . . . .	52,145 83			
Chief Architect's Office. . . . .	28,098 14			
Telegraph service. . . . .	2,900 00			
			112,790 00	112,790 00
Retiring allowances—Joseph Rosa, C.E. . . . .	\$1,003 75			
C.E. Michaud do . . . . .	1,003 75			
J. Bowes, Architect. . . . .	1,080 00			
W. B. Snow, C.E. . . . .	365 00			
			3,452 50	3,452 50
Gratuity to the widow of the late John C. Allison, C.E. . . . .			300 00	300 00
Funeral of the late Sir John S. D. Thompson. . . . .			22,497 37	22,497 37
Carried forward. . . . .	1,039,775 52	336,208 73	650,900 91	2,026,885 16

APPENDIX No. 1—*Concluded.*

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
COLLECTION OF SLIDE AND BOOM DUES.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward. ....	1,039,775 52	336,208 73	650,900 91	2,026,885 16
Saguenay District.....\$ 84 52				
St. Maurice do ..... 843 38				
Ottawa do ..... 2,518 79				
Newcastle do ..... 92 30				
GENERALLY..... 85 53				
Ottawa District—Upper Ottawa Improvement Co.—				
Allowance <i>re</i> logs thro' Chenaux boom, 1894-95..			3,624 52	3,624 52
Newcastle District—Costs <i>re</i> suit of Messrs.			1,557 69	1,557 69
Mossom, Boyd & Co., &c .....			1,152 16	1,152 16
Totals.....	1,039,775 52	336,208 73	657,235 28	2,033,219 53

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 15th November, 1895.

O. DIONNE,  
*Chief Accountant.*

Department of Public Works.

APPENDIX No. 2

---

REPORT

ON

PUBLIC BUILDINGS

THROUGHOUT THE DOMINION

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1895

BY THE

CHIEF ARCHITECT



Department of Public Works.

APPENDIX No. 2.

REPORT OF THE CHIEF ARCHITECT.

DEPARTMENT OF PUBLIC WORKS,  
CHIEF ARCHITECT'S OFFICE,  
OTTAWA, 18th September, 1895.

SIR,—I have the honour to transmit herewith the annual report of this branch, for the fiscal year ended 30th June, 1895.

I have the honour to be, sir,  
Your obedient servant,  
THOMAS FULLER,  
*Chief Architect.*

E. F. E. ROY, Esq.,  
Secretary, Public Works Department.

PROVINCE OF PRINCE EDWARD ISLAND.

CHARLOTTETOWN.

Repairs were made to electric bells, plumbing, etc.

SUMMERSIDE.

Minor repairs to doors were made and some of the walls kalsomined.

PROVINCE OF NOVA SCOTIA.

AMHERST.

Some rubber fire hose was supplied and some minor repairs effected.

ANNAPOLIS.

Some minor general repairs were effected.

ANTIGONISH.

A water service was put in and connected with that of the town; the inside plastering was repaired, the walls coloured and the ceilings whitened.

BADDECK.

The cast iron hot water heater having become unserviceable was replaced by a new one; new locks were provided for outside doors; the inside of building was painted, the walls kalsomined and ceilings whitened; wire mesh was put in between top of post office screen and ceiling and some new post office fittings supplied.

DARTMOUTH.

Some further furniture was supplied; a burglar proof safe was put in the post office and the electric incandescent light was installed.

## HALIFAX.

## DRILL HALL.

A block of land bounded by Maynard, Cunard, North Park Streets and John's Lane with frontage of 190, 304, 205 and 304 feet, respectively was acquired from a number of proprietors to be used as a site for the building; plans were prepared and tenders advertised for.

The building is to be 304 feet in length by a width of 160 feet, exclusive of a projection 20 feet by 65 feet 10 inches on Cunard Street front, and four projecting circular turrets in which are the staircases. The outside walls are to be of stone with brick backing, the partitions of brick, the principals of roof over hall are of iron. The entire area of the building, excepting a part under the hall (140 feet by 110 feet) is to be excavated and occupied; the part under the hall being for bowling alleys, shooting galleries and band rooms. Between alleys and Maynard Street a gun shed 110 feet by 42 feet 6 inches to extend up through the ground floor and a lecture room is provided over the gun shed. Under the projection on Cunard Street are to be a kitchen, sewing rooms, and three store rooms, while on John's Lane will be fuel, band room, gun cleaning room and other stores, etc. The ground floor is to contain a drill hall 250 feet by 110 feet—64 feet in height from floor to apex of roof and 33 feet from floor to watlplate; and the Halifax Garrison Artillery are provided for on ground and first floor next John's Lane and Cunard Street. In projecting wing are officers' quarters on ground floor, with recreation and mess rooms, etc., on floor above. Plans, etc., prepared by this department.

## DOMINION BUILDING.

Repairs were made to the hot water boilers and heating apparatus, drains, slating, cornice, floor of registration office and furniture, besides minor repairs in post office and inspector's office and some new furniture was supplied.

Work inspected by C. E. W. Dodwell, resident engineer, Halifax, N.S.

## EXAMINING WAREHOUSE.

The elevator was repaired; the drains which were choked were overhauled and connected with city sewer at Hollis Street, and some repairs were done to plumbing.

Work inspected by C. E. W. Dodwell, resident engineer, Halifax, N.S.

## IMMIGRATION BUILDING.

Some usual and ordinary repairs to the building and fittings were effected.

On the 29th February, 1895, the entire group of buildings of the agency at the deep water terminus were destroyed by fire. Temporary accommodation for the immigrants was provided in a freight shed of the I. C. R. at Richmond, and a lunch counter was put in. The shelter of the apparatus used by the quarantine officer for disinfecting passengers' baggage was destroyed by the same fire and a new building had to be provided for its protection.

Work inspected by C. E. W. Dodwell, resident engineer, Halifax, N.S.

## LUNENBURG.

## POST OFFICE.

This building which was described in a previous report is completed and occupied.

Plans, etc., prepared by this department.



# Department of Public Works.

## NEW GLASCOW.

### PUBLIC BUILDING.

The wrought iron furnace of the hot water heating apparatus was taken out and replaced by a Gurney Double Crown heater, which was provided with a steel smoke pipe and connected.

## PICTOU.

### POST OFFICE.

This building which was described in my report of last year, was contracted for 8th August, 1894, is now in a forward state and is expected to be completed during this autumn.

Plans, etc., prepared by this department.

Works inspected by C. E. W. Dodwell, resident engineer, Halifax, N.S.; clerk of works, Jos. Hudson, Pictou, N.S.

Contractors, Rhodes, Curry & Co., Amherst, N.S.

## SYDNEY.

### PUBLIC BUILDING.

The storm doors were repaired.

## TRURO.

### POST OFFICE.

Repairs were made to waste pipes. The cesspit in rear of the building was lined with brick and the bottom concreted.

Works inspected by C. E. W. Dodwell, resident engineer, Halifax, N.S.

## WINDSOR.

### POST OFFICE.

An additional cast iron hot water heating furnace was supplied and connected with the heating system.

---

## PROVINCE OF NEW BRUNSWICK.

## BATHURST.

### POST OFFICE.

A new pump and connections for well in cellar was provided and repairs made to plumbing.

## CHATHAM.

### POST OFFICE.

Building completed and occupied.

Plans, etc., prepared by this department.

Clerk of works, Wm. Lawlor, Chatham, N.B.

Contractor for building and fittings, Jos. Treen, North Sydney, C.B.

Contractor for heating apparatus, Thos. Campbell, St. John, N.B.

## MONCTON.

## PUBLIC BUILDING.

The plastering of the walls and ceiling were kalsomined, excepting in cellar, which was lime whitened; the hardwood floors were re-oiled and the post office screen revarnished. Two cast iron hot water boilers were put in to replace the worn out tubular boiler which was removed, and repairs were done to plumbing and electric bells.

## PARTRIDGE ISLAND.

## QUARANTINE STATION.

New zincs were furnished for the batteries; the two large hospitals, the disinfection building and fences were whitewashed; a fence blown down was replaced and repaired and some furniture supplied the superintendent's office.

Works carried out under the supervision of W. J. McCordock of this department, St. John, N.B.

## PORTLAND (ST. JOHN).

## POST OFFICE.

The building was cleaned, the plastering whitened and the woodwork repainted and in part revarnished; a new washbasin and a new water-closet were put in; the roof was repaired; the cupola being rotten was taken off and replaced by a hatch; the roof gutters and down pipes were renewed; a partition was put in between the office and large store; some necessary articles were supplied and the water service repaired.

Work carried out under the supervision of W. J. McCordock, of this department, St. John, N.B.

## ST. JOHN.

## CUSTOM HOUSE.

A brick partition was put in north basement. In caretaker's quarters north basement a mantel and grate were provided, the walls tinted and ceilings whitened, some furniture, speaking tubes, hose, etc., were supplied. Work carried out under the supervision of W. J. McCordock, of this department, St. John, N.B.

## POST OFFICE.

A new flag staff was supplied; the space between the post office screen and the ceiling was closed by a glass partition; repairs were made to stonework, lead flashing, plumbing, electric bells, locks, furniture and hoist, and some fittings and furniture supplied.

Work carried out under the supervision of W. J. McCordock, of this department, St. John, N.B.

## SAVINGS BANK.

The terra cotta drain, soil pipes and closets were taken out, and cast iron pipe, new soil pipes and traps with new pattern closet ventilated through roof, were put in.

Work carried out under the supervision of W. J. McCordock, of this department, St. John, N.B.

## Department of Public Works.

### TRACADIE.

#### NEW LAZARETTO.

Work on this building, which was described in my report of last year has been carried on continuously and is expected to be completed at an early date.

Plans and specifications for a hot water heating apparatus are prepared. Plans, etc., prepared by this department.

Clerk of works, Jas. Davidson, Tracadie, N.B. Contractor, Wm. Stuart, Ottawa, Ont.

### WOODSTOCK.

#### PUBLIC BUILDING.

Some of the brickwork was renewed, the stonework repointed and a portion of the outside woodwork repainted.

## PROVINCE OF QUEBEC.

### AYLMER.

#### POST OFFICE.

A portion of the woodwork was painted.

### GROSSE ISLE.

#### QUARANTINE STATION.

The ss. "Challenger" was cleaned and repainted; the laboratory was fitted up with bacteriological apparatus and supplies; alterations and renewals of the telethermometric apparatus was done, and some iron pipe, grate bars, etc., supplied.

### JOLIETTE.

#### PUBLIC BUILDING.

The hot water heating apparatus was repaired.

### MONTREAL.

#### CUSTOM HOUSE.

The galvanized iron vent pipes of plumbing were taken out and replaced by others of cast iron, to conform with the city ordinance, the main drain was cleaned, a new water storage tank put in third floor, new marble wash stands and plumbing were put in the offices of the collector, deputy collector and surveyor, and one in attic, a new gas meter and a main were put in cellar, a new heating coil was put in secret service office, and the coils in the testing room, storeroom and paper room altered. The copper roof gutter on the Commissioners street front was renewed, new gas mains, fixtures, drains, plumbing, etc., were put in for new office, one of the passages was refloored and painting was done in the long room passages, and the offices of collector, deputy collector and surveyor.

Works carried out under the supervision of Ed. Guilbault, clerk of works, Montreal.

#### EXAMINING WAREHOUSE.

General repairs were made to ticket office, express office and dry goods office, and the roof covering was painted, a new Unitas closet supplied. Some new shafting,

wire rope and a column supplied for hoists and the store hoist repaired. Two marble urinals with plumbing vented through roof put in, also two new marble washstands were put in the caretaker's quarters, and a portion of the drain renewed.

Work done under the supervision of Ed. Guilbault, clerk of works, Montreal.

#### INLAND REVENUE BUILDING.

The roof covering was painted, a new gas meter and main were put in and the tobacco drying furnaces altered. The analysts' laboratory was fitted up.

Work done under the supervision of Ed. Guilbault, clerk of works, Montreal, P.Q.

#### POST OFFICE.

The lobby floor was laid with tile; further fittings were supplied for the registered letter branch; the first floor and the public lobby on ground were cleaned and painted throughout; an observation gallery was constructed adjoining the registered letter office; the space formerly occupied by the registered letter office on ground floor was fitted up and furnished for the use of the deputy postmaster; the post office screen was furnished with new pattern brass box fronts, and repairs were made to roof, heating apparatus, etc.

Works executed under the supervision of this department.

Supervising architects, A. Raza and J. Nelson.

Clerk of works, Ed. Guilbault, Montreal.

#### QUEBEC.

##### CITADEL—GOVERNOR GENERAL'S QUARTERS.

The usual annual cleaning, painting and preparations for His Excellency's annual visit was done.

Works done under the supervision of an officer of this department.

##### CULLERS' OFFICE.

A new coil was put in one of the Inland Revenue offices.

##### CUSTOM HOUSE.

Repairs were made to plastering, plumbing, bells, etc.; the metal roofing where injured by storm, was repaired and renewed; general repairs to the windows and sidewalks and some papering and tinting done.

##### POST OFFICE.

The heating apparatus referred to in my last report has been completed, and the fittings for the new wing as well as some alteration of the existing fittings are now in progress.

Work done under the supervision of this department.

Contractor for heating apparatus, Wm. Ford.

#### ST. HYACINTHE.

##### POST OFFICE.

Some minor, ordinary and usual repairs to glazing, plaster, etc., were effected.

#### RICHMOND.

##### PUBLIC BUILDING.

Plans and specifications are prepared and tenders are about to be advertised for the construction of this building on the site on Main street, referred to in my

## Department of Public Works.

previous report. The building is to be of brick on a stone foundation and consist of a main portion 40 feet square of two stories with attic and basement, and a one story annex 40 feet by 17 feet. The ground floor to be for the post office and examining warehouse. The first floor for the Customs and Inland Revenue, the attic for caretaker and the basement for heating apparatus and fuel. Plans, etc., prepared by this department.

### RIMOUSKI.

#### POST OFFICE.

On 4th May, 1895, a contract for the construction of this building on the corner of College street and Public Road was entered into.

It is to have brick walls on a stone foundation with floors, partitions, and roof of wood. There will be a main portion 40 feet by 30 feet, two stories, basement and attic and a one story annex, 26 feet by 18 feet; the ground floor is to contain the post office and examining warehouse, the first floor the Customs and Inland Revenue and the attic for the caretaker. Plans, etc., prepared by this department.

Clerk of works, Pierre Raymond, Rimouski, P.Q.

Contractor, Chs. B. Beaulieu, Lévis, P.Q.

### ST. JÉRÔME.

#### PUBLIC BUILDING.

A new outside porch for ground floor, a new flag staff for roof and three new windows in cellar were provided. Repairs to door of general delivery and slating of roof were effected.

### SHERBROOKE.

#### POST OFFICE.

All the inside and outside woodwork was re-painted and re-varnished, the inside walls cleaned and tinted, and the ceilings cleaned and whitened; new locks were supplied and some repairs made to lock boxes and pointing of outside stonework and brick work.

Work carried out their supervision of the caretaker.

### SOREL.

#### POST OFFICES, ETC.

The water supply service was repaired and partly renewed.

### WEST FARNHAM.

#### POST OFFICE.

This building is completed, fitted up and occupied.

## PROVINCE OF ONTARIO.

### ALMONTE.

#### PUBLIC BUILDING.

An entrance porch was put up, a tank for water supply placed in attic and some window shades supplied, under the supervision of the caretaker.

## AMHERSTBURG.

## POST OFFICE, ETC.

The electric incandescent light was installed; the inside of the building was cleaned, the woodwork painted, the walls tinted and the ceilings whitened; some storm sashes were supplied and repairs made to glazing, brick-floor of furnace room, etc., under the supervision of the caretaker.

## BARRIE.

## POST OFFICE.

The whole of the woodwork was painted two coats and some minor repairs made.

## BELLEVILLE.

## POST OFFICE.

A portion of the basement was partitioned off and shelved for use as a store room; the outside woodwork of the building was repainted and some of the lock boxes repaired. Work superintended by Jos. Power, architect, Kingston, Ont.

## BERLIN.

## POST OFFICE, ETC.

The whole of the outside wood and galvanized iron work was painted. Some outside shutters were supplied, repairs were made to lobby and office floors, tower door and tank room.

Work done under the supervision of the caretaker.

## BRAMPTON.

## POST OFFICE, ETC.

The external woodwork of building and the woodwork of interior of lobby were repainted; the plaster was repaired the walls tinted and the ceiling whitened; some signs for offices were supplied and some minor repairs done to plumbing. Work done under the supervision of the caretaker.

## BRANTFORD.

## POST OFFICE, ETC.

The external woodwork has been repainted, repairs were made to the steam valves. The plumbing of this building which was done in 1893 was connected with the city sewer. Work done under the supervision of the caretaker.

## COBOURG.

## POST OFFICE, ETC.

A set of new steps were provided at post office entrance; the post office fittings were cleaned and re-varnished; repairs were made to furniture; some painted signs supplied and gas fitting done. Work done under the supervision of the caretaker.

## CORNWALL.

## POST OFFICE, ETC.

Repairs were made to the hot water heating furnace and apparatus.

## Department of Public Works.

### GALT.

#### POST OFFICE, ETC.

The woodwork and galvanized iron of the building were repainted; the plastering was repaired and cleaned, the walls tinted and the ceilings whitened; a large portion of the cement floor of basement was renewed and some post office fittings and linoleum supplied. Work done under the supervision of the caretaker.

### GANANOQUE.

#### POST OFFICE, ETC.

The brickwork of chimney was repaired; a shelf was placed over heating coil and a black-board supplied in public lobby; additions were made to fittings; glazing was repaired; the plaster of inside walls was repaired and cleaned, the walls tinted and the ceilings whitened.

### GUELPH.

#### POST OFFICE, ETC.

The plastering of first floor and attic was repaired and cleaned, the walls tinted and the ceilings whitened, excepting those of Inland Revenue offices which were painted; the post office screen was cleaned and varnished and the space between same and ceiling filled in with a glazed screen; the hot water mains in basement were covered with asbestos composition; the woodwork in basement was painted and the ceilings whitened and the coping of driveway was reset in cement.

Work done under the supervision of caretaker.

### ORILLIA.

#### PUBLIC BUILDING.

The lot was fenced and graded and a plank sidewalk laid.

### OTTAWA.

#### GOVERNMENT HOUSE.

At Rideau Hall a new hot water heating apparatus was put in to heat the entire building, excepting a portion of the basement, this apparatus was constructed to take the place of eight hot air furnaces, one small hot air furnace and twenty-four stoves, all of which were removed. The removal of the furnaces with their flues registers etc., occasioned a large amount of making good and provided several additional bed-rooms in the basement. To provide a boiler room a portion of the basement had to be excavated, changes had to be made in partitions, doors, a large quantity of new partitions, wood as well as concrete flooring, a new chimney as well as a large globe ventilator for furnace room and alterations made to carpentry, stonework, brickwork, plastering etc., etc., of basement throughout.

The incandescent electric light was installed throughout the Hall and the cottage, a brick vault to contain the convertors had to be built, the gas fixtures, with an addition of some new electroliers and brackets, being utilized.

A portion of the room between inner hall and outer hall was divided into two water closets provided with all necessary plumbing, etc.

Two new bed-rooms and a bath-room were formed in the unoccupied space under the tennis court; the lamp room in basement was changed into a bed-room, the stone flagging being removed and replaced by wood and the plastering renewed; a window between ball-room and sewing-room was changed to a door; the Secretary's office was divided by a wooden partition; a cupboard in store-room was rendered

## Department of Public Works.

suitable for refrigerator purposes; a large quantity of portable shelving was fitted up for books, periodicals, etc.; the conservatory floor was relaid, plant tables rebuilt and the brickwork of conservatory furnace taken down, the furnace repaired, and the brickwork rebuilt; the sashes of vinery in large part renewed and a number of repairs to green house executed and broken glass replaced.

A one story dairy building of wood consisting of an octagonal dairy-room 28 feet in diameter, and office and milk-room each 12 feet 6 inches by 12 feet 6 inches each, and an ice-house 6 feet by 12 feet is being constructed in the Hall grounds.

The guard house was converted into a dwelling for one of the stablemen, involving putting in partitions, flooring, doors, porch, re-shingling of roof and a portable latrine.

A new water closet was put in at the laundry and two others at the cottage, with all necessary plumbing and connections, rooms in all cases having to be partitioned off, plastered, etc.

An inclosed wooden shelter 57 feet by 9 feet by 12 feet with glazed front, was built at the skating rink and the staircase to refreshment room inclosed and roofed.

The roofs of the ball-rooms, curling rink, stable and laundry were re-shingled and the vallies, ridges, hips, etc., renewed. The galvanized iron roof of kitchen was in part renewed. Some new sash were furnished for lodge.

The cow house was re-modelled, re-floored, 10 stalls and mangers fitted up and the space under floor filled with earth and ashes.

The toboggan slides were repaired and partly refloored. Repairs were made to roofs, kitchen, stairway, drains and to woodwork, plastering, furniture, carpets, curtains, drapery, flags, etc., etc.

At the Hall, cottage, etc., a large quantity of paporing and painting was done, and for the hall new carpets, china glassware, stoneware and kitchen requisites were supplied.

Packing and other cases were provided for the household when removing to and from Quebec; a temporary floor was laid on lawn for dancing and the usual work in connection with the entertainments done. Several hundreds of the cedars at Laundry were cut down to assist in drying the swampy ground; the grounds, conservatories, gardens, rinks, toboggan slides, etc., were kept in order; a large quantity of bulbs were supplied and some of the flower beds filled up and sodded for a croquet lawn.

A new kitchen range was put in the cottage.

Works carried out under the supervision of this department by the departmental staff. Clerk of works, Wm. Hutchison.

Contractors for maintenance of grounds, etc., Sorley & Sims, Ottawa. Contractor for removal of snow, W. J. Sims, Ottawa.

### CENTRAL EXPERIMENTAL FARM.

The residence of the poultry manager was altered and added to, four farm entrance gates were provided and set up, a shed was erected in rear of stableman's residence, the farm foreman's residence was re-shingled, the museum was fitted up and the farm buildings generally repaired. Work done by departmental staff.

### EASTERN BLOCK, DEPARTMENTAL BUILDING.

A large quantity of fittings was supplied to the attic of the Privy Council Office and to the Interior department; heating coils were placed in Nos. 85 and 87; gas fittings were supplied to Nos. 42, 43, 46, 49, 51, 81, 83, 87; an electric bell was hung in No 57; a washstand was put in No. 109; a water supply pipe in No. 107 and a gas heater in the large vault of the Finance Department.

Work carried on by the departmental staff; Wm. King, Ottawa, mechanical engineer, F. Breton, Ottawa, clerk of works.



## FISHERIES, MUSEUM AND ART GALLERY.

The galvanized iron roof covering was renewed, the brick walls and outside woodwork painted, the skylight and chimney were repaired, the dormer windows altered and the interior painted, tinted and papered.

Work done by departmental staff; clerk of works, F. Breton, Ottawa.

## GOVERNMENT PRINTING BUREAU.

Eight ventilators were placed in linotype room to carry off the lead fumes, fire hose was supplied, some new water pipes were fitted up and some of the electric wiring, which had been destroyed by fire, was replaced.

Work done by the departmental staff.

## LANGEVIN BLOCK.

A portion of the cornice was re-painted, the platform over Elgin St. porch was renewed and some minor repairs were made to copper roofing. A wash basin, electric bells and some gas fittings were supplied to Department of Indian Affairs.

Work done by the departmental staff.

Mechanical engineer, Wm. King, Ottawa.

Clerk of works, F. Breton, Ottawa.

## WESTERN BLOCK—DEPARTMENTAL BUILDING.

An additional room was fitted up for the archivist; steam coils were put up and connected in the offices of the minister and his private secretary; additions to the Inland Revenue laboratory were made; a wash basin was fitted up in No. 130; gas fitting was done in Nos. 11, 14, 17, 36, 92, 93 and 184, and electric bells wired between Major General and Adjutant General offices as well as in messenger's room Marine Department.

Work done by the departmental staff.

Mechanical engineer, Wm. King, Ottawa.

Clerk of works, F. Breton, Ottawa.

## MAJOR'S HILL PARK.

The lawn benches were repaired and painted and some new ones supplied. The grounds were maintained to the satisfaction of the department.

Contractor, L. Garello, Ottawa.

## PARLIAMENT BUILDING.

Four old locomotive pattern steam heating boilers were taken out and replaced by three tubular boilers set in brickwork. The steam pipes in the boiler house as well as those in basement between Commons and Senate were covered with non-conducting material; a gas cooking stove was supplied to the restaurant kitchen and another to the chief messenger's quarters; a steam main was run from the boiler-room to the heating coils in clerk of journals' office; electric bells were provided for Sir R. Cartwright's room and the G.N.W. Telegraph reporters' room, gas fitting for room of Mr. Joncas, and the electric light installed in the office of the Serjeant at Arms. A ventilating pipe was put in No. 25½, and some chemical fire extinguishers were supplied. Extensive alterations were made in the Commons and Senate galleries.

Works done by the departmental staff.

Mechanical engineer, Wm. King, Ottawa.

Clerk of works, F. Breton, Ottawa.

## PARLIAMENT GROUNDS.

The yards at Senate and Commons were altered; a new stairs was built down to Lovers' Walk; repairs were made to sidewalks, summer houses, railing and bridges of Lovers' Walk, and some new benches were supplied. The snow was removed and the ice stored and delivered. The grounds, etc., were maintained to the satisfaction of the department.

Contractor for maintenance of grounds, etc., N. Robertson, Ottawa.

Contractor for removal of snow, Wm. Moore, Ottawa.

## PUBLIC BUILDINGS, REPAIRING STREETS, ETC.

Scraping, cleaning, repairs were made to the roadway of east and west Canal Streets, and on both sides of locks, Nepean Point roadway, Wellington, Bank, Metcalfe, Elgin and St. Patrick Streets, Major's Hill roadway, Little Sussex Street, also the yards of the Printing Bureau, Museums, Post Office and old Pump House. The sidewalks and crossings of Wellington Street, Cartier Square, St. Patrick Street and at the Museums were repaired, the boulevard on Wellington Street was also repaired, the grass of the Geological Museum and Cartier Square was kept clipped, and the ashes removed from the Langevin Block, Museums and Printing Bureau, the various roadways, sidewalks, foot paths, roofs and yards were kept clean of snow during the winter.

Work done by the departmental staff.

Contractor for the removal of snow, W. H. Cuddie, Ottawa.

## SMITH'S FALLS.

## PUBLIC BUILDING.

This building which was described in my last report has been completed, fitted up, and furnished with a hot water heating apparatus and occupied.

Plans, &c., prepared by this department.

Clerk of works, Wm. Corbett, Smith's Falls.

Contractor for building and fittings, Robert Cameron, Almonte.

Contractors for heating apparatus, McKinley & Northwood, Ottawa.

## ST. CATHARINES.

## PUBLIC BUILDING.

A new postal bag rack was supplied, some additional gas fitting done; all wood-work and external iron work, including roof covering was painted; some linoleum was supplied and some repairs to fittings effected.

Work done under the supervision of the caretaker.

## ST. THOMAS.

## PUBLIC BUILDING.

A new flag staff was supplied and sundry minor repairs made to plastering, fittings and furniture.

## STRATFORD.

## PUBLIC BUILDING.

Plans for an additional story on building and clock tower, and a one story and basement addition to Inspector's building, and for the renovation of this building fittings, &c., were prepared, the work contracted for, and is now nearly completed for occupation.

## Department of Public Works.

Plans, &c., prepared and work supervised by this department.  
Clerk of works, D. Scrimger.  
Contractor, Jno. E. Askwith, Ottawa, Ont.

### TORONTO.

#### DRILL HALL.

This building is completed and occupied.  
Plans, &c., prepared by this department.  
Supervising architect, R. C. Windeyer, Toronto.  
Clerk of works, R. L. Beale, Toronto.  
Contractors for heating, Bennett & Wright, Toronto.

### TRENTON.

#### POST OFFICE, &C.

The plastering was repaired, the walls tinted and the ceilings whitened; the woodwork of building, gates, &c., was painted; the space between the post office screen and the ceiling was filled in with wire mesh and some black-boards were supplied.

Work done under the supervision of the caretaker.

### WALKERTON.

#### POST OFFICE.

Repairs were made to eavestroughs, stairway and some minor works, and the yard was gravelled.

Work done under the supervision of the caretaker.

### WINDSOR.

#### PUBLIC BUILDING.

Additions were made to the gas fittings, the post office locks were repaired, a new porch and some furniture were supplied.

## PROVINCE OF MANITOBA.

### BRANDON.

#### POST OFFICE.

The heating apparatus and plumbing were repaired; furniture and fittings were supplied to the customs and post office as well as some linoleum and storm sashes to the customs, and the customs offices were painted and kalsomined.

#### INDUSTRIAL SCHOOL.

This building is completed and transferred to the Department of Indian Affairs for occupation. During the fiscal year contracts were entered into for a supplementary hot air heating apparatus to heat the wing as well as a hot water system for baths, a brick cistern in basement and eavestroughs and down pipes connected with the cistern, all of which works are completed.

Plans prepared by this department, clerk of works, D. Smith, Winnipeg, Man.  
Contractors for building, Harrington & Chambers.

## Department of Public Works.

Contractors for heating apparatus, ventilating apparatus, Smead, Dowd Co.  
Toronto, Ont.

Contractor for supplementary heating, Geo. E. Toms.

Contractors for hot water system, Plaxton Bros. Winnipeg, Man.

Contractor for cistern and connections, T. M. Harrington.

Contractor for troughs and down pipes, J. L. Wells.

### NORTH-WEST TERRITORIES.

#### WOLSELEY, ASSA.

##### COURT HOUSE.

This building which was described in my report of last year is practically completed.

Plans, etc., prepared by this department; clerk of works, Chs. Taylor.

Contractors for construction, E. A. Banbury & R. A. Magee.

Contractors for hot-water heating apparatus, McKinley & Northwood, Ottawa.

#### LETHBRIDGE, ALTA.

##### PUBLIC BUILDING.

The building has been completed and is being furnished with a hot air heating apparatus. Plans, etc., prepared by this department.

Clerk of works, Wm. Cluston, Lethbridge, Alta. Contractor for heating apparatus, J. F. Kirkham.

#### REGINA, ASSA.

##### GOVERNMENT HOUSE.

A hot air pumping engine was connected with the water supply and a fire service with hydrants, hose, etc., put in; the plastering, painting and papering were repaired and in part renewed; the drains were overhauled and the piano and a portion of the furniture renovated.

Work superintended by D. Smith, clerk of works, Winnipeg, Man.

#### REGINA, ASSA.

##### COURT HOUSE.

This building which was described in a previous report is completed, fitted up with a hot water heating apparatus, furnished and has the incandescent electric light installed. Plans, etc., prepared by this department.

Clerk of works, S. A. Clark, Regina.

Contractor for building and fittings, Chs. Willoughby, Regina.

Contractors for heating, Manitoba Plumbing Co., Winnipeg, Manitoba.

Contractors for electric bells and wiring lighting, McDonald Bros.

#### MOOSOMIN.

##### COURT HOUSE.

On 12th November, 1894, a contract for alteration of and an addition to this building was entered into, and the work was nearly completed at the close of the

fi-cal year. The addition measures 20 ft. by 40 ft. and consists of a stone basement and two stories of wood. The ground floor and first floor each contain two offices and the ground floor a brick vault.

Plans, etc., prepared by this department.

Clerk of works, D. Smith, Winnipeg, Man.

Contractor, J. W. Smith.

## PROVINCE OF BRITISH COLUMBIA.

### NEW WESTMINSTER.

#### POST OFFICE.

Some repairs were made to roof, glazing, plumbing, stoves, etc.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

### VICTORIA.

#### CUSTOM HOUSE.

Some alterations were made in appraiser's office; repairs were made to ventilation, locks and plumbing, and some new furniture and carpets supplied.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

#### MARINE HOSPITAL.

The drains were repaired and cleaned.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

#### POST OFFICE, ETC., BUILDING.

A bag rack, two letter sorting frames and some pigeon holes, drawers, tables and stools were supplied; and ordinary repairs were made to plumbing, gas fixtures, furniture, grates, etc.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

#### NEW PUBLIC BUILDING.

On 16th January, 1894, the Government purchased from Canada Western Hotel Company, lots 1 to 8 between Government and Wharf Streets, with frontage of 150 ft. on Government Street.

Plans, etc., were prepared and a contract for the construction was entered into on 21st November, 1894.

The building is to have stone outside walls with basement and ground floor partitions of brick, and the floors, roof and remaining partitions of wood; and will consist of a main portion 136 ft. by 75 ft. having three full stories, a basement and a mansard, and also "L" shaped annex of one story and basement, consisting of a portion to be devoted to stores 75 ft. by 26 ft., a bonded warehouse 109 ft. by 38 ft., and in rear of the bonded warehouse a one story driveway 30 ft. by 29 ft. 4 inches.

The main building is to contain in the basement furnace and fuel-rooms, store-room, water closets, etc.; the ground floor is to be the post office, the first floor the customs and finance, the second floor the inland revenue and post office, inspector's office, and the attic is in part to be occupied by the caretaker.

Plans, etc., prepared by this department and work to be supervised by F. C. Gamble, resident engineer, Victoria, B.C.

The contract was signed on 21st November by the late F. Toms of Ottawa and on his decease was transferred by his estate to Elford & Smith, of Victoria, B.C., who signed a contract for the construction on 14th March, 1895.

## NEW DRILL HALL.

An out building for officers and men's water closets and fuel-room was constructed; suspension rods were put in to support galleries of hall, and an extension ladder and some clothing racks supplied.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.  
Contractor for the addition, Geo. Glover, Victoria, B.C.

## MILITARY STORE HOUSE.

Tenders were called for by public advertisement and a contract entered into on the 21st June, 1895, for the erection of this building.

Plans, etc., prepared and work supervised by F. C. Gamble, resident engineer, Victoria, B.C.

## WILLIAM'S HEAD, B.C.

## QUARANTINE STATION.

A derrick was erected on wharf; a telephone line was built connecting Victoria with William's Head, and another connecting the various buildings in the grounds; the sulphur dioxide blast was removed from steamer "Earl" and set up and furnished with a shelter on wharf, some gangways were provided for wharf and minor repairs made to gate, pipe line, etc.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

## DOMINION BUILDINGS.

## FUEL.

Tenders were invited by public advertisements, for the supply of coal at 127 of the public buildings, and coal and wood supplied to over 180 buildings in all.

## LIGHTING.

The lighting of the various Dominion buildings is under the control of this branch of the department. Of these buildings 84 are lighted by gas, 59 by incandescent electric light, 2 by gasoline, 2 by natural gas, and the remainder by coal oil. At several of the last mentioned, the entrance is illuminated by an arc light outside.

## WATER.

The water supply for the various public buildings, excepting the penitentiary and military buildings, is controlled by this branch of the department; 122 buildings at 68 localities have water services connected with the water supply of the local waterworks companies, the remainder being in general supplied with wells, pumps and tanks.

## ENGINEERS, FIREMEN, &amp;c.

The various engineers, firemen and caretakers, 237 in number, including employees at parliament and departmental buildings at Ottawa, and the heating apparatus of Dominion public buildings, with the exception of those of the various penitentiaries and the military buildings, are under the control of this branch of this department.

## GENERALLY.

Repairs and alterations have been executed and sundry articles of furniture, &c. provided, cleaning, painting and other improvements carried out in connection with a number of buildings, not herein reported upon.

Department of Public Works.

APPENDIX No 3

---

REPORT

ON

HARBOURS AND RIVERS, DREDGES, DREDGING AND SURVEYS

THROUGHOUT THE DOMINION

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1895





## APPENDIX No. 3.

## REPORT ON HARBOURS AND RIVERS, DREDGES, DREDGING AND SURVEYS THROUGHOUT THE DOMINION, FOR THE FISCAL YEAR ENDED 30TH JUNE, 1895.

DEPARTMENT OF PUBLIC WORKS OF CANADA,  
CHIEF ENGINEER'S OFFICE,  
OTTAWA, 1st October, 1895.

SIR,—I have the honour to submit the following report on the works under my charge during the fiscal year ended 30th June, 1895.

These works consist in the construction of, and repairs to wharfs, piers and breakwaters. Dredging and the maintenance of the dredging plant belonging to the department. The construction and maintenance of graving docks. The maintenance and administration of slides and booms. The construction and maintenance of interprovincial bridges, and of bridges in the North-west Territories.

Hydrographic surveys and examinations required for the preparation of plans and reports.

## WHARFS, PIERS AND BREAKWATERS.

During the year 1894-95, works were carried on at the following places:

*Nova Scotia.*

Babin's Cove.....	Richmond County.....	Construction of wharf.
Bass River.....	Colchester Co.....	do do
Blanche Harbour.....	Shelburne Co.....	Extension of groin.
Blue Rock.....	Antigonish Co.....	Storm protection work.
Boularderie Island.....		
Monday Point.....	Cape Breton Co.....	Construction of wharf.
Broad Cove Marsh.....	Inverness Co.....	Repairs to wharf.
Broad Cove.....	Lunenburg Co.....	do breakwater.
Caribou Island.....	Pictou Co.....	Harbour improvements.
Church Point.....	Digby Co.....	Construction of block.
Co. v Bay.....	Cape Breton Co.....	Repairs to breakwater.
Cribbin's Point.....	Antigonish Co.....	Repairs to wharf.
Grand Etang.....	Inverness Co.....	Harbour works.
Great Village.....	Colchester Co.....	Repairs to wharf.
Harbourville.....	Lunenburg Co.....	Repairs to pier.
L'Ardoise.....	Richmond Co.....	Reconstruction of breakwater.
Little Harbour.....	Shelburne Co.....	Improvement of channel.
Margarce.....	Inverness Co.....	Repairs to breakwater and to beach protection work.
Margaretsville.....	Annapolis Co.....	Repairs to breakwater.
McNair's Cove.....	Antigonish Co.....	do
Meagher's Beach.....	Halifax Co.....	Repairs to protection work.
Monk's Head.....	Antigonish Co.....	Cutting boat channel.
Nyanza.....	Victoria Co.....	Construction of wharf.
Parrsboro.....	Cumberland Co.....	Repairs to pier.
Pictou Island.....	Pictou Co.....	Repairs to wharf.
Port George.....	Annapolis Co.....	Repairs to breakwater.

Port Medway .....	Queen's Co.....	Repairs to protection work.
Port Mouton (proper). do .....	do .....	Repairs to protection pier.
do (south-west). do .....	do .....	Repairs to breakwater.
Roseway Beach.....	Shelburne Co.....	Repairs to beach protection.
South Ingouish.....	Victoria Co.....	do
Three Fathom Harbour.....	Halifax Co.....	Repairs to beach protection.
Three Island Cove....	Richmond Co.....	Improvement of channel.
Front Cove.....	Digby Co.....	Repairs to breakwater.
White Haven Canal...Guysboro' Co .....	do .....	Repairs to work.

*New Brunswick.*

Buctouche .....	Kent Co. ....	Repairs to wharf.
Cape Tormentine .....	Westmoreland Co.....	do
Hopewell Cape .....	Albert Co. ....	Repairs to ballast wharf.
Negro Point, St. John Harbour .....	St. John Co.....	Repairs to breakwater.
Pointe du Chêne.....	Westmoreland Co....	Reconstruction of breakwater.
Quaco (west).....	St. John Co.....	Repairs to dam.
River St. John .....	do .....	Repairs to pier.

*Prince Edward Island.*

Bay Fortune .....	King's Co.....	Harbour improvements.
Bay View .....	Queen's Co.....	Repairs to pier.
Campbell's Cove . ....	King's Co.....	Repairs to breakwater.
China Point.....	Queen's Co.....	Repairs to pier.
Georgetown.....	King's Co.....	do
Hurd's Point .....	Prince Co.....	Improvements.
Kier's Shore.....	do .....	do
Lambert's Pier . ....	King's Co.....	Repairs to pier.
Miminegash .....	Prince Co.....	Repairs to works.
New London .....	Queen's Co. ....	do
North Cardigan.....	King's Co.....	Repairs to pier.
Pinette .....	Queen's Co .....	do
Rustico .....	do .....	Improvements.
Souris.....	King's Co. ....	Repairs to breakwater.
Stephen's.....	do .....	Improvements.
St. Mary's Bay .....	do .....	do
Wood Islands .....	Queen's Co.....	Reconstruction and repair of eastern breakwater.

*Quebec.*

Baie St. Paul ... ..	Charlevoix Co.....	Extension of wharf and repairs to block.
Cacouna .....	Temiscouata Co .....	Construction of wharf.
Cap de la Magdeleine. Champlain Co .....	do .....	Extension of wharf.
Chicoutimi .....	Chicoutimi Co.....	Wharf improvements.
Etang du Nord .....	Gaspé Co.....	Repairs to breakwater.
Grandes Bergeronnes .....	do .....	Removal of rocks.
Grande Décharge ....	Chicoutimi Co.....	Extension of pontoon.
Isle Verte .....	Temiscouata Co .....	Wharf improvements.
Lake St. John District.....	do .....	Improvements to navigation.
Matane .....	Rimouski Co. ....	Repairs to pier.
Murray Bay . ....	Charlevoix Co. ....	do
New Carlisle .....	Bonaventure Co .....	do
Petite Rivière Saint-François .....	Charlevoix Co.....	Removal of boulders.
Port Daniel .....	Bonaventure Co.....	Repairs to pier.

## Department of Public Works.

Queen's Wharf, Quebec.....	Repairs to wharf.
Rivière du Lièvre.....Ottawa Co .....	Protection to dam.
Rivière du Sud.....Montmagny Co .....	Protection works.
River St. Maurice .....	Improvements to navigation.
Roberval.....Chicoutimi Co.....	Extension of wharf, &c.
St. Jean .....	Reconstruction of pier.
St. Laurent .....	do .....
St. Michel .....	Bellechasse Co.....Repairs to pier.
Touladie River.....Témiscouata .....	Improvements to navigation.
Trois Pistoles.....do .....	Improvements to wharf.
Yamaska Lock .....	Yamaska Co.....Repairs to dam.

### *Ontario.*

Burlington Channel....Wentworth Co.....	Repairs to east pier.
Dyer's Bay .....	Bruce Co.....Construction of pier.
Goderich .....	Huron Co.....Extension of pier.
Kingston.....	Frontenac Co.....Removal of shoal.
Kingsville.....	Essex Co.....Repairs to pier.
Owen Sound .....	Grey Co .....
Port Albert .....	Huron Co.....Harbour improvements.
Port Rowan .....	Norfolk Co .....
Rondeau .....	Kent Co.....Extension of pier and dredging.
Sault Ste. Marie .....	Algoma Co.....Improvements.
Southampton .....	Bruce Co.....Repairs to pier.
Thornbury .....	Grey Co.....Repairs to pier.
Toronto.....	York Co.....Construction of harbour works.

### *Manitoba.*

Hnausa.....	Lake Winnipeg .....
	Construction of wharf.

### *British Columbia.*

Columbia River.....Above Golden .....	Improvements to navigation.
Columbia River.....Below Kootenay. ....	do .....
Columbia River.....At Revelstoke .....	do .....
Fraser River.....Garry Bush .....	Protection works.
Fraser River.....Mouth of river.. .....	do .....
Fraser River.....	Jetty works.
Kicking Horse River.....	Survey of river.
Kootenay River.....	Protection works.
Skeena River.....	Improvements to navigation.
	Removal of obstructions.

# Department of Public Works.

## WHARFS, PIERS AND BREAKWATERS.

### NOVA SCOTIA.

#### BABIN'S COVE.

Babin's Cove, Richmond County, is on the northern side of Arichat Harbour, Isle Madame, and nearly opposite its western entrance.

In December, 1893, a contract was entered into for the construction of a wharf at this place for winter service, which included the grading of a road and rock cutting 410 feet in length; an embankment of stone 12 feet in length; and a block and span structure consisting of an inner block 20 by 20 feet on top, and an outer one 25 by 40 feet on top, with an opening or span of seventeen and one-half feet.

At the close of the year 1893-94 the road embankment and rock cutting were about one-half completed; the stone embankment was finished, and the inner block was in place, and built up to half tide and ballasted.

During the fiscal year 1894-95 the work under contract was completed.

The depth at the outer end of the wharf at extreme low water is 11 feet. Spring tides rise 5 feet

#### BASS RIVER.

Bass River, Colchester County, is a thrifty farming and manufacturing village of some 500 people, situated on the north side of Cobequid Bay, the eastern arm of the Bay of Fundy. It is half way between Truro and Parrsboro', or about 28 miles from each place.

In December, 1894, a contract was awarded to Mr. John McMillan of Port Hood, C. B., for the construction of a pile wharf at a cost of \$2,840.

Work was commenced early in April and at this date (June 30th, 1895) the work is nearly completed.

#### BEAR TRAP.

Bear Trap Harbour, Lunenburg County, is situated on the south-east coast of Lunenburg County, about midway between the towns of Liverpool and Lunenburg, or a distance of 16 miles from each, and half a mile north-east from the entrance of Broad Cove.

It is not a harbour properly speaking, as it is fully open to the sea, but is merely a small indentation in the coast line not more than 600 feet deep.

It is inhabited only during the fishing season by fishermen from Broad Cove, of whom about 16 are employed, using small boats.

In 1885, the department expended the sum of \$200 in digging a channel (175 feet long, 10 feet wide and having a depth of 5½ at H. W. O. S. T.) from the head of the little cove to the pond on the upper side of the road to enable the fishermen to enter the latter with their boats and there find shelter from south and east gales.

During the year the sum of \$40 was expended in re-opening the channel that had been filled with sand and gravel washed in by the waves.

#### BLANCHE HARBOUR.

Blanche is a small scattered fishing peninsula of about 130 people situated on the southern extremity of the peninsula forming the western side of Negro Harbour, about 18 miles nearly due south of Shelburne, the county town.

The only harbour for fishing boats in the neighbourhood is a small tidal pond, nearly dry at L. W. O. S. T. with a narrow and exposed channel leading into it, and an area at H. W. O. S. T. of some two or three acres. The sides of the entrance

channel being composed of fine gravel constantly shifting under the action of the waves, it became necessary, for the permanence of the harbour to protect it, and in 1892 the department built a groin 72 feet, in length, on its eastern or exposed side.

During the year the sum of \$300 was expended in building an extension to this groin 50 feet in length.

The work is 10 feet wide on top and about 7 feet high, built of round cribwork and filled with ballast.

#### BLUE ROCK.

Blue Rock, Antigonish County, is on the southern coast of St. George's Bay, two and one-half miles to the eastward of Tracadie Harbour.

A breakwater extending three hundred and twenty-six feet in a south-westerly direction from Blue Cape, was completed in 1888. The depth at extreme low water at the outer end is 12 feet and over the area sheltered from the north-east, from 12 to 5 feet.

It having been ascertained that the face timbers below the line of low water had been weakened and in places destroyed by the teredo, and that the ballast had settled 5 feet below the upper ballast floor on the seaward side, and 2 feet on the inner side for a distance of 140 feet from the outer end, repairs were undertaken in 1892-93 and the sum of \$496.99 was expended in close-piling the outer end, and for a distance of 65 feet off the seaward side, and 15 feet on the inner side from the outer end; in reballasting for a distance of 60 feet from the outer end; and in placing large stone on the seaward side for a distance of 60 feet beyond high water mark.

In 1893-94 the sum of \$999.96 was expended in continuing the work commenced the previous year. One hundred and fifteen feet of the breakwater (60 to 175 feet from the outer end) was reballasted, and a stone protection work sloping one and a half to one from a height of three feet above low water mark, was carried along the seaward and outer end faces.

During the fiscal year 1894-95 the sum of \$497.57 was expended in completing the stone protection work on the seaward side and at the outer end, commenced in 1892-93 and continued in 1893-94; and in placing stone along the inner face sloping 1 to 1 from high water mark, for a distance of 40 feet from the outer end.

Spring tides rise 4 feet.

#### BOULARDERIE ISLAND—MONDAY POINT.

Monday Point, Cape Breton County, is on the southern side of Boularderie Island, three and a half miles to the westward of the Little Bras d'Or bridge.

A contract was entered into in April, 1894, for the construction of a wharf 160 feet in length, consisting of a stone embankment 20 feet wide on top, the sides having a slope of one and a half to one; and a cribwork head 22 by 44 feet.

The substructure of the cribwork head was framed in June, 1894, but at the close of that month no portion of the work had been put in place.

During the fiscal year 1894-95 the work under contract was completed.

The depth at the outer end of the wharf is 11 feet at low, or 12 feet at high lake level.

#### BROAD COVE.

Broad Cove March, Inverness County, is on the Gulf of St. Lawrence, 12 miles north from Margaree Harbour.

The wharf at this place was completed in 1888. It was 400 feet in length and 26 feet in width on top, and was constructed in separate blocks up to a little above low water, with continuous superstructure. The outer block and the block next it were respectively 56 and 68 feet in length. The depth at the outer end at extreme low water was 12 feet 10 inches.

In 1890 slight repairs were made to the covering and cap timbers near the outer end, and several of the outer pockets on the east were re-ballasted.

In December, 1890, the work was badly damaged; the superstructure was destroyed over a distance of 100 feet from the outer end, and the top broken up for a further distance of 60 feet.

The outer block went down four or five feet below low water, and the second block to low water over 44 feet of its length; ballast went out of the face chambers on the east side to within 160 feet of the inner end.

During the years 1891-92-93 the work was reconstructed to within 56 feet of the outer end, and the face chambers on the east side were reballasted.

Of the amount available for this work during 1893-94 the sum of \$91.00 was expended in the settlement of payment due for the completion of the ballasting of the outer end in 1892-93 and the balance, \$209.00 was applied to close fendering about 170 feet of the outer end, with materials which had been procured for that purpose during the preceding year.

During the autumn of 1893, and again in January, 1894, the work sustained serious damage through the loss of the ballast which was washed out through openings at the bottom on the eastern side. Subsequently it was carried away down to below low water to within 207 feet of the shore end.

During the fiscal year 1894-95 the sum of \$500 was expended in reconstructing the work from 207 feet from the shore end, or from the outer end of the shore block,—to within 2 feet of required height, on the west side over 15 feet at the bottom from 1 foot below low water, 39 feet on top; and on the east side over 28 feet at the bottom, from 2 feet below low water, and 52 feet on top; and in procuring all the timber required to complete the new work with the exception of 88 fenders.

Spring tides rise 4 feet 5 inches.

#### BROAD COVE.

Broad Cove, Lunenburg County, is a thrifty fishing and farming settlement of about 350 people, situated on the Atlantic coast, at the southern corner of Lunenburg County and distant 20 miles by road from Bridgewater.

The breakwater, which affords the only shelter to about 20 fishing boats, was built in 1876 at a cost of \$4,000, of which \$3,000 was contributed by the Federal and \$1,000 by the Provincial Government. It is a well built structure of close-faced, stone-filled cribwork 250 feet long, 22 feet wide and 12 feet high at the outer end.

During the year the sum of \$500 was expended in making extensive and much needed repairs to this structure.

The work done consists in the raising of the outer end about 14 inches to make up for settlement caused by worms (limnoria) eating away the bottom face timbers; new flooring, stringers and 3-inch plank, on the outer 100 feet; on the seaward face 100 feet of the work was sheathed with vertical 3-inch plank, and 36 new fenders were bolted on; on the outer end new planking and 7 new fender piles; on the inner face 15 new fender piles. In the outer end about 100 tons of new ballast was put to replace that fallen out. Along the seaward face also a large quantity of large boulders was placed to break the force of the waves. The work is now in good condition.

#### CARIBOU ISLAND.

Caribou Island, Pictou County, is on the Northumberland Strait, 5 miles to the westward of the entrance to Pictou Harbour. It is about 4 miles in length and half a mile in average width.

Caribou Harbour, sheltered by Caribou Island and a smaller island lying to the eastward of it, is an extensive place 6 miles in length and 1 mile in width, but the water is shallow.

The principal entrance between the two islands has only a depth of 4 feet at extreme low water, and the flats between the mainland and the western extremity of Caribou Island are dry at extreme low water, except in a few small channels. Spring tides rise 6 feet, neaps 4 feet.

## Department of Public Works.

A causeway of brush and stone 1,330 feet in length and 18 feet in width on top, between the mainland and the western extremity of the island, commenced in 1890-91 and continued in 1892-93 and 1893-94 remained in an unfinished condition, being covered in places at half tide.

During the fiscal year 1894-95 the sum of \$299.38 was expended in raising the work which is now up to about ordinary high water level over 560 feet of its length, and about one and a half feet below that level over the remaining 770 feet.

### CHURCH POINT.

Church Point, Digby County, is situated on the south shore of St. Mary's Bay, directly opposite Petit Passage, about 8 miles south-west from Weymouth.

The breakwater which is one of the most important in St. Mary's Bay, was begun about 50 years ago by the inhabitants and local authorities, and has been extended and improved on several occasions since. In 1875-76 the department expended the sum of \$2,000, the inhabitants contributing an equal amount, in repairing the northern face and constructing an L 72 feet by 20 feet, at right angles to it to prevent the gravel from working round the outer end.

During the year a new block of round log cribwork 30 feet long, 15 feet wide and 13 feet high, was built out in a westerly direction from the extremity of the main breakwater, at a cost of \$350 to offer a further check to the working of the gravel round the end of the work.

### COW BAY.

Cow Bay, Cape Breton County, is on the eastern coast of Cape Breton Island about 18 miles eastward of Sydney Harbour. Owing to extensive coal mines in its vicinity it is a place of considerable importance.

The bay is two and a half miles wide at its mouth, and being open to the Atlantic from the east, affords no safe anchorage during gales from that quarter.

A breakwater was built on the north side of the bay some twenty or twenty-five years ago, by Messrs. Archibald & Co., proprietors of the Gowrie mines, with some aid from the Government of Nova Scotia.

It is 1,386 feet in length and was originally about 44 feet in width, and had a depth, at the outer end at low water, of 20 feet. The area of the basin inclosed between it and the loading pier of the Gowrie mines is about 17 acres, 10 acres of which had originally a depth of from 9 to 20 feet at low water.

Spring tides rise 5 feet.

In 1873, while repairs were in progress by the department, the breakwater was seriously damaged by the great gale of the 24th August.

After the gale, operations were resumed, the balance of the amount appropriated being largely supplemented by Messrs. Archibald & Co.

In 1874, Messrs. Archibald & Co.'s interest in the breakwater was acquired by the Dominion Government, and a contract entered into in May, 1876, for repairing and strengthening the structure, was completed in July, 1877.

Extensive repairs have been made nearly every year since 1877, and the work has been strengthened by the addition of counterforts or outer face works, and by close piling. During the fiscal year 1894-95 the sum of \$4,289.45 was expended in renewing the covering of the roadway for a length of 380 feet (220 to 600 feet from the shore end), and in urgent repairs to the outer works.

The repairs to the outer works included reconstructing and close piling about 120 lineal feet of outer face work, replacing about 500 cubic yards of ballast in the two outer counterforts, and in temporary repairs to the covering of the outer block and two outer counterforts.

The breakwater, prior to the gales of the 3rd and 8th February, 1895, consisted of an inner work extending from within 220 feet of the shore end to the outer end, and of counterforts with connecting outer face works, from within 580 feet of the

## Department of Public Works.

shore end to within 56 feet of the outer end. The outer and inner works were about 22 feet apart, and were connected by tie walls. The spaces between them were filled with earth and stone ballast.

During the gales referred to, a breach was made through the breakwater near the outer end, 140 feet of the outer face work (including 70 feet recently reconstructed) having been destroyed, and the work opposite to it, carried away down to below low water; about 25 feet of the outer work between the two outer counterforts was destroyed; ballast was washed out in several places; and some close-piling was carried away.

### CRIBBIN'S POINT.

Cribbin's Point, Antigonish County, is on the west side of St. George's Bay, 8 miles to the southward of Cape George and 5 miles to the northward of the entrance to Antigonish Harbour.

A wharf, commenced in 1890-91 and completed the following year, extends 300 feet in a southerly direction from the point, and has an approach 195 feet in length.

The approach consists partly of side cuttings and embankment with a stone retaining wall, and partly of a through cutting 18 feet wide at the bottom with sides sloping one and one-half to one.

The wharf is 20 feet in width on top for a distance of 120 feet from the inner end, and 30 feet for the remaining 180 feet.

The inner 50 feet is of stone, and the outer 250 feet of close-faced timber work fully ballasted and protected by sheathing and fenders. The depth at extreme low water at the outer end was at the time of the completion of the work 11 feet.

Spring tides rise 4 feet.

In 1893-94, a small amount was expended on works required to prevent damage by water to the roadway and slopes.

During the fiscal year 1894-95 the sum of \$279.91 was expended in placing additional ballast in the outer 180 feet, over the whole of which the ballast had settled two and one-half feet; in repairs to the cap-timbers and covering, and in placing about 15 cubic yards of large stone on the seaward side, 120 feet from the inner end.

### GRAND ETANG.

Grand Etang, Inverness County, is situated on the Gulf of St. Lawrence, about midway between the harbours of Margaree and Cheticamp.

In December, 1893, a contract was entered into for the construction of works designed to improve the entrance to a large pond, and thus make it available for use and shelter of fishing boats and small vessels.

At the close of the year 1893-94 the work was being prosecuted vigorously, the expenditure to that date amounting to \$4,962.04.

During the fiscal year 1894-95, the work under contract was completed with the exception of the excavation to low water between the piers, including the removal of the roadway and bridge.

The works consist of two piers, placed 87 feet apart, except at the entrance where the distance between them is narrowed to 44 feet.

Each pier consists of brush and stone work 135 feet in length; brush and stone work with outside slopes of 3 to 1, 130 feet in length; open faced cribwork, 100 feet in length; and a close-faced cribwork head 30 by 40 feet, the substructure of which is of creosoted timber.

About 200 feet of the brush and stone work on each side is founded on a bottom excavated to 1 foot above extreme low water, and the remainder of the pier work, on the natural bottom, the depth at the outer end being about 4 feet 6 inches at extreme low water.

In order to make the pond available for boats and small vessels, a channel is to be opened between the piers by dredging to 6 feet at low water, but this cannot be done until after the construction, by the Provincial Government, of a bridge across the pond, about a quarter of a mile from the entrance.

Spring tides rise 4 feet.



## GREAT VILLAGE.

Great Village, Colechester County, is a thriving and prosperous village of about 1,000 people, engaged in farming, ship-building and lumbering, situated on the north side of Cobequid Bay and on the Great Village River,  $1\frac{1}{2}$  miles above its mouth. It is 15 miles west of Truro, the county town, at the extreme head of the bay, and  $3\frac{1}{2}$  from Londonderry Station on the Intercolonial Railway.

In 1891 the department built a new wharf on the site of an old one, on the left or east bank of the river just below the village. During the year the sum of \$450 was expended in some necessary repairs to this work consisting in (a) the raising the north-west corner of the wharf a height of  $4\frac{1}{2}$  feet to make up for settlement caused by scour, (b) filling a hole about 6 feet deep at the same corner, with brush and stone and (c) protecting with brush and stone the bank of the river, at and near the north-east corner of the wharf, in order to prevent freshet from wearing away the bank and causing further settlement of the structure.

## HARBOURVILLE.

Harbourville, King's County, is situated on the south shore of the Bay of Fundy, 53 miles north-east from Digby Gut. The population of the settlement is about 200 people engaged in fishing and farming, the former being the staple industry.

During the year the sum of \$110.71 was expended in repairing the western breakwater or wharf.

The work done consists of the building of 200 lineal feet of cribwork, 6 feet wide, and 2 logs high, along the base of the east side of the work to prevent the stream from undermining it; the placing of 12 half-round fenders on the outer end, and the fastening of a small portion of the floor.

## HILTZ'S NARROWS.

Hiltz's Narrows, Lunenburg County, form the entrance to a sheltered cove or lagoon of some 150 acres in extent, situated on the west side of Mahone Bay, about 6 miles south-west from Chester and 4 north-east from the village of Mahone Bay.

In 1875-76 the Provincial Government built a cribwork warping pier, 270 feet long, 8 feet wide and 7 feet high, on the north side of the entrance, which at its narrowest point is only 200 feet wide, to enable fishing boats to pass in and out at ebb and flood tide, when there is a very strong current.

During the year the department spent the sum of \$60 in repairs to this little structure. The work done consists of the rebuilding of a length of about 12 feet that had been broken down by ice, and the placing and bolting of 40 new fenders.

## L'ARDOISE.

Lower L'Ardoise, Richmond County, is situated on the eastern side of St. Peter's Bay, near its entrance from the Atlantic, and about 9 miles from the southern entrance to St. Peter's Canal.

During 1876-77 an isolated breakwater, 400 feet in length, was built off Martin's Point, in from 5 to 10 feet at low water; but owing to its exposed position it met with constant damage, and in 1883 was almost entirely destroyed.

During 1891 a contract was entered into for the reconstruction of this breakwater and the work was completed in August, 1893. The new work consisted of a timber core, 400 feet in length and 20 feet in width, placed on the remains of the former structure in from one to four and one-half feet at low water, its top standing one foot above high water, the whole being covered with stone, sloping 3 to 1 on the seaward side and ends, and 2 to 1 on the inner side. The whole of the surface of the area above low water mark was covered with stones of not less than 15 cubic feet in capacity, the spaces between the stones above the line of high water being filled with cement concrete.

Soon after completion, the work received damage during a southerly gale. The covering stones on the seaward side between low and high water marks were more or less disturbed, and at the outer end of the inner slope, about 50 cubic yards of ordinary ballast and 50 of the covering stones were carried away.

Subsequently more stone was carried away from the outer end of the inner slope and the covering stones were disturbed for a distance of about 125 feet from the outer end.

During the fiscal year 1894-95 the sum of \$4,293.87 was expended in procuring the necessary plant, and in effecting repairs.

One hundred and fifty-nine scow loads averaging 15 tons, or 6 and a half cubic yards per load, of large stone were placed where required, and 150 barrels of Portland cement were used in making concrete to fill in the spaces between the covering stones.

The work done included reconstructing the slopes and renewing or readjusting the covering stones where required, (96 scow loads of stone being used for this purpose), placing 63 scow loads of stone at the toe of the slopes, principally near the outer end; and in filling in, with concrete, the spaces between the covering stones of a portion of the crown of the work, and of the side and end slopes down to about high water level.

#### LITTLE HARBOUR.

Little Harbour is a small cove situated on the extreme south coast of Lunenburg County, four miles east of the Queen's County boundary, 13 miles north-east from Liverpool and about 17 miles south-west from Lunenburg and 1 mile south from Broad Cove.

Immediately at the cove there are no residents, but within a radius of about two miles is a population of some 200 people, engaged in farming and fishing.

In 1881 the department expended the sum of \$200 in digging a channel in the cove four or five hundred feet long, 14 feet wide, and with a depth of water of 2½ feet at L. W. O. S. T.

During the year the department spent the sum of \$240 in widening and lengthening the channel, by hand digging, to a length of 525 feet, a width of 30 feet, and a depth of 2½ feet at L. W. O. S. T. This work is of great advantage to the fishermen.

#### MARGAREE.

Margaree Harbour, Inverness County, is at the mouth of Margaree River, on the Gulf of St. Lawrence, about 30 miles north-east of Port Hood.

The entrance is by a narrow channel obstructed by a bar of shifting sand, over which there is at times only five feet at extreme low water.

Spring tides rise 4 feet.

#### *Breakwater.*

A pier constructed on the west side of the entrance to the harbour by the Provincial Government, was repaired and extended by the department in 1876 and 1879. In 1890-91 the work was extended 200 feet, and some repairs to the old works were effected.

During the great gale of December, 1890, the old Provincial Government work was almost totally destroyed, and the covering, cap-timbers, and top ballast of the outer work were disturbed in places.

In 1891-92 the outer works were repaired and reballasted and a new cribwork was built over 130 feet of the remains of the old Provincial Government work, between the outer works and the shore, to within one and a half feet of the required height; of this, 65 feet averaged 2 feet in height and 20 feet in width, and the remaining 65 feet, 4 feet in height, and 18 feet in width.

## Department of Public Works.

In 1892-93 the sum of \$1,083.95 was expended in raising and covering the 130 feet of work undertaken the previous year, and in completing it by constructing 40 feet of cribwork 18 feet wide and 6 feet in average height; and in the construction of a new cribwork 186 feet in length, 18 feet wide and two and a half feet in average height, and a work of brush and stone 168 feet in length of the same dimensions, over the remains of the old Provincial Government works, between the work previously described and the shore.

During the fiscal year 1894-95 the sum of \$463.96 was expended in repairing and rebalasting portions of the outer work, and in raising the old Provincial Government work between the outer work and the shore.

Seventeen chambers or pockets were rebalasted from the bottom; of these, 4 at the outer end were filled partly with cement concrete (25 barrels of Portland cement having been used for this purpose) and the remainder with selected ballast. About 90 lineal feet of cap-timber was renewed, and the covering, where taken up, was refastened with steel spikes.

One hundred and eighty-five feet of the old Provincial Government work was raised one and one-half feet with stone, and the remaining 180 feet, 2 feet with brush and stone.

### *Beach protection work.*

During an unusually high freshet on the 29th December, 1894, the sand beach on the north-east side of the entrance to the harbour was cut through in two places. The larger opening, near the south-western extremity of the beach, was 200 feet in width at high water level, 80 feet wide at the bottom, and six and a half feet in average depth at extreme low water. The smaller opening was 60 feet in width at high water level, 24 feet in width at the bottom, and 5 feet deep at extreme low water.

During the months of April and May, 1895, the sum of \$981.85 was expended in closing the two openings in the beach. The larger opening was closed by a work of brush and stone 24 feet in width on top, and 3 feet above extreme high water; and a work 10 feet in width built across the smaller opening by the fishermen, was widened to 20 feet and raised to a height of two and a half feet above extreme high water.

### MARGARETVILLE.

Margaretville, Annapolis County, is the largest and most important village on south coast of the Bay of Fundy between Digby Gut and Scot's Bay. It is 42 miles north-east from the former and 36 miles south-west from the latter, and 8 miles north from Middletown, an important station and junction on the Dominion Atlantic Railway.

During the year the sum of \$494.07 was expended in filling with new solid work a breach in the seaward face of the breakwater made by a severe gale in March, 1894. The new work is 25 feet long, 15 wide and from 12 to 14 feet high. The structure is now in good condition, but not long enough to be of very much service, the outer 203 feet having been destroyed in previous years.

### M'NAIR'S COVE.

McNair's Cove, Antigonish County, is on the western shore of St. George's, 2 miles south of Cape George.

A breakwater was built on the north side of the cove in 1872-73. In 1875 the outer end, which had settled, was built up to the original. In 1878 repairs were made and a new block was placed at the outer end.

In 1879 the work was carried away by drift ice to within 100 feet of the shore end, down to from 6 to 3 feet below low water. During the summer of 1883, 70 feet was rebuilt, and during the winter of 1884 the work was extended 94 feet.

The 94 feet extension was badly damaged by drift ice in April, 1884, and was subsequently carried away.

A contract entered into in 1887, for the reconstruction of 160 feet of the breakwater, was completed in 1888.

## Department of Public Works.

The new work is 32 feet in width on the top, and had a face sloping one to one from 2 feet above low water, on the seaward side and at the outer end. It was founded on a bottom dredged to from 13 feet at low water at the outer end, to 7 feet at the inner end. The seaward and outer end faces were protected by close piling.

In 1890-91 the covering and floor stringers over about 70 feet of the inner portion of the breakwater were renewed, and 125 piles were procured for replacing the close piling of the outer work, but were not used.

In 1892-93 the sum of \$1,299.62 was expended in placing a talus of quarried stone on the seaward side of the 160 feet extension over a distance of 110 feet from the inner end.

In 1893-94 the sum of \$3,212.37 was expended in increasing the talus on the seaward side of the outer 160 feet, which was commenced in 1892-93; in cutting down and reconstructing with vertical faces, a length of 20 feet of the outer end of the work, and in driving 43 out of the 75 creosoted piles, procured for close piling the outer 20 feet.

During the fiscal year 1894-95 the sum of \$797.11 was expended in completing the close piling at the outer end and the talus on the seaward side, near the inner end to prevent sand from being carried across the work.

### MEAGHER'S BEACH.

Meagher's Beach, Halifax County, is a narrow neck or spit of shingle and coarse gravel, about half a mile in length, projecting from the west side of McNab's Island, at the entrance of Halifax Harbour.

Early in April, 1894, a severe storm damaged the beach protection works that protect the boat harbour, immediately to the north of the beach.

During the year thorough repairs were made at a cost of \$420. The work done consisted of flooring and ballasting 130 feet in length of the pile work; flooring and ballasting 50 feet in length of cribwork; and flooring and ballasting a groin 50 feet long besides fixing new walings to the pile work, and a number of new fenders to the cribwork.

### MONK'S HEAD.

Monk's Head, Antigonish County, is situated on the southern side of St. George's Bay, between the Harbours of Antigonish and Pomquet.

A large sheet of water to the westward of Monk's Head, known locally as "Dunn's Lake" is separated from St. George's Bay by a beach of sand, and from Antigonish Harbour by a neck of low land 692 feet in width at low water level.

The sum of \$500 was appropriated for expenditure during 1894-95 in opening a channel for boats between Dunn's Lake and Antigonish Harbour. The channel when completed is to be 4 feet wide at the bottom, at the level of extreme low water with sides sloping one and one-half to one.

Of the amount appropriated \$444.87 was expended in making a cutting, including side slopes, to within one and a half feet of extreme low water and in constructing a highway bridge. A further sum of \$55.06 was expended in acquiring a right of way for the boat channel, making a total expenditure of \$499.93.

The work of completing the channel is in progress.

Spring tides rise 4 feet, neaps 2 feet.

### NYANZA.

Nyanza, Victoria County, is a settlement between Middle and Baddeck Rivers on Indian Bay, a reach of an arm of the Bras d'Or Lake known as St. Patrick's Channel. It is 7 miles from Baddeck, the shiretown, and 11 miles from Whycomagh.

In November, 1893, a contract was made for the construction of a brush wharf to extend 136 feet into 12 feet at low or 13 feet at high lake level, and at the close of that year the contractor had procured the necessary materials and was about ready to commence construction.

During the fiscal year 1894-95 the work under contract was completed.

## PARRSBORO'.

Parrsboro' Pier, Cumberland County, is situated on the north side of the Basin of Minas, about a mile to the south-west of the lighthouse at the entrance to Parrsboro' Harbour.

It is two miles south of the village of Parrsboro', and is the landing place for the steamers of the St. John, N.B., and Basin of Minas route, which call regularly during the season.

It was built by the Provincial Government in 1864-65 and has subsequently received frequent and extensive repairs by the Department of Public Works.

During the fiscal year the sum of \$1,500 was expended in extensive repairs and renewals to this work. The work done consists in raising the outer 110 feet of the pier to the same height as the shoreward portion. The maximum height of new work is 8 feet and the width on top is now 26 feet 9 inches.

The object of raising was to prevent the ice from lodging on the work, freezing and tearing off the covering which had happened more than once.

## PICTOU ISLAND.

Pictou Island, in the Strait of Northumberland, and about 10 miles north-east of the entrance to Pictou Harbour is five miles long and one and a half miles in width. There are two wharfs on the south side of the island, one near the west end, and one known as the "east wharf," near the centre.

The west wharf was commenced by the Provincial Government. It was repaired and strengthened by the department in 1880, and extended 62 feet 6 inches in 1887-88. In 1891-92 a 50 foot extension was completed with the exception of placing the covering, a small quantity of ballast, and a few fenders.

In 1892-93 repairs were completed and materials were procured for a proposed 82-foot extension. In 1893-94 the 82-foot extension was completed.

The east wharf was commenced by the department in 1882-83 and extended 100 feet in 1887-88. In 1891-92 the outer end was partially repaired and a 60-foot extension was placed and built up to within 6 feet of finished height. In 1892-93 the repairs and extension were completed and materials were procured for a further extension of 60 feet. In 1893-94 the work undertaken the previous year was completed.

During the fiscal year 1894-95 the sum of \$174.10 was expended in urgent repairs to the outer end of the west wharf, which had been damaged by ice.

The depths at extreme low water, at the outer ends of the east and west wharf, are respectively 4 feet 6 inches and 4 feet 9 inches.

Spring tides rise 6 feet.

## PORT GEORGE.

Port George, Annapolis County, a thrifty village of about 400 people, is situated on the south shore of the Bay of Fundy, 37 miles north-east from Digby Gut and 42 south-west from Scot's Bay. It is 6 miles south-west from Margaretville and 5 miles north-west from Middleton on the Dominion Atlantic Railway.

During the year the sum of \$1,398.18 was expended in repairs to the breakwater.

The work done consists in the rebuilding with solid cribwork a breach 40 feet long, the full width of the work 40 feet and 12 feet high, that was made by an exceptionally heavy gale in April, 1894. The work is now in good condition.

## PORT MEDWAY.

Port Medway, Queen's County, is a village of about 700 people situated on the southern side, and about three miles from the mouth of the bay of the same name, on the Atlantic coast, at the north-east corner of Queen's County, and eleven miles north-east from Liverpool the county town. The chief business of the place has been the export of timber and lumber of which considerable quantities are still shipped, as well as of wood pulp for the manufacture of paper.

In 1875-76 beach protection works were built to prevent the sea from breaking through and washing away Foster's Point that protects an inner cove, and on which are situated a ship-yard and some private wharfs. These works consist of two pieces of crib-work, the north piece 450 feet and the south 240 feet long, 11 feet wide and from 4 to 7 feet high. Their original cost was \$4,513.50.

During the year the sum of \$350 was expended in making thorough repairs to the northern piece. The work done consists of the practical rebuilding of about 90 feet, and the addition of many new timbers and additional bolts to the rest of the work. A new ballast floor was laid in half the work, and nearly 200 tons of new ballast put in. The work is now in first rate order.

#### POLT MOUTON—PROPER.

Port Mouton, Queen's County, is a settlement of about 400 people situated at the head of Port Mouton Bay on the Atlantic coast, near the southern end of Queen's County, and 10 miles south-west from Liverpool, the county town.

To protect the wharf, at which most of the shipping business of the place was done, a protecting pier or breakwater 61 feet long, 26 feet wide and about 14 feet high, was built before confederation by the local government. This work which stands about 400 feet out from the end of the wharf, and which was not very substantially built of round log cribwork, was repaired by the department in 1887.

During the fiscal year the sum of \$666.60 was expended in rebuilding the whole top of the block to a height of about 10 feet.

#### PORT MOUTON, SOUTH-WEST.

South-west Port Mouton, Queen's County, is a small fishing and farming settlement on the south-west side of Port Mouton Bay, five miles south-east from the village of Port Mouton, and fourteen miles south-west from Liverpool, the county town.

A breakwater 150 feet long was built here by the department in 1887, at a cost of \$5,000. It affords shelter to 15 to 20 boats and a large proportion of the inhabitants of the settlement are dependent upon it for the safe prosecution of their fishing.

During the year the sum of \$151.02 was spent in repairing a breach in the seaward face of the work. The breach was 20 feet long and the full height of the work about 7 feet. A new face was built and the ballast which had fallen out was replaced, a few new plants were also spiked on the floor at the outer end.

#### ROSEWAY BEACH.

Roseway Beach, Shelburne County, is situated at the eastern end of Round Bay, about 10 miles due south of Shelburne town.

The beach extends from the shore outwards towards Grey's Island and forms a natural breakwater to a small harbour behind it from which considerable fishing is done in small boats. It is composed of fine white sand, which when dry, drifts badly, and the top of the bar became so low that in 1889, some extra high tides came over into the harbour. To preserve the harbour the department in 1889, spent \$100 in protecting the bar in the same manner as was done at Round Bay, immediately to the westward, viz., by laying and fastening together brush and small trees along the highest part of the beach to allow the drifting sand to collect.

During the year the sum of \$50 was expended in renewing a portion of the beach protection, where the trees and brush had so far decayed as to no longer retain the sand.

#### SOUTH INGONISH.

Ingonish Bay lies on the north-east coast of Cape Breton Island, about midway between Sydney Harbour and Cape North.

## Department of Public Works.

It is divided into North and South Bays by Middle Head, a narrow rocky and precipitous peninsula, over 2 miles in length. At the head of South Bay there is an extensive pond separated from the sea by a shingle and boulder beach through which there formerly existed a comparatively shallow channel, 60 feet in width with a depth of 5 feet at extreme low water, available for fishing boats at high water only.

In 1875 works were undertaken by the department for the improvement of the channel. On their completion in 1876 there was a channel 200 feet in width, with a depth of nowhere less than 14 feet, and with its northern side protected by a pier 500 feet in length, thus giving access for vessels to the pond, which has an area of about 400 acres and affords a safe and commodious harbour.

The pier, on which small sums were expended every year from 1876 to 1880, and larger amounts in 1881 and 1882, sustained serious damage during heavy easterly gales in 1882, and was subsequently carried away down to below low water.

In 1886-87 an anchor and mooring buoy were placed in the harbour near the entrance, and a beach protection work 58 feet in length was constructed on the north side of the entrance.

In 1893-94 the sum of \$1,143.73 was expended in the construction of a wharf near the entrance to the harbour, consisting of a block of cribwork 31½ feet wide on top and 30½ feet in length, with an approach of brush and stone 45 feet in length, and 20 feet wide on top. The depth at the outer end at extreme low water is 8 feet 3 inches.

During the fiscal year 1894-95 the sum of \$967.42 was expended in closing a breach at the back of the beach protection work on the north side of the entrance, by constructing a cribwork block 45 feet in length and 15 feet in width, and placing brush and stone at the sides.

During a great easterly gale accompanied by an extraordinary high tide, on the 4th February, 1895, the beach was swept from end to end. Nearly all the buildings and all the private wharfs were destroyed, but the public works were not disturbed with the exception of some settlement in the slope on the seaward side of the beach protection work.

Since 1882 the channel has decreased in width, but it has maintained its depth fairly well. It is still nowhere less than 100 feet in width, and has a depth of not less than 13 feet 6 inches at extreme low water.

Spring tides rise 5 feet.

### THREE FATHOM HARBOUR.

Three Fathom Harbour, Halifax County, is situated on the Atlantic coast of Nova Scotia, about 15 miles to the eastward of Halifax Harbour. It is formed by islands and connecting gravel beaches, and although small, is well sheltered from all quarters, and the small vessels that frequent the coast can enter and leave it at all times of tide.

During the year the sum of \$150 was expended in repairing the beach protection work 1,050 feet long (built in 1878 and extended in 1889) that protects the harbour from the open Atlantic. The work done consists in raising the seaward side of the work a height of 2 feet for a length of 140 feet to make up for settlement, fixing a number of new fenders, and the placing of a few tons of fresh ballast.

### THREE ISLAND COVE.

Three Island Cove, Richmond County, is situated on the east side of St. Peter's Bay, about 4 miles from the southern entrance to St. Peter's Canal.

The entrance to the cove is blocked by a bar 400 feet in width, of clay covered with gravel, which is dry in patches at extreme low water.

In 1893-94 a cutting was made through the bar, 20 feet in width, except over 40 feet at the outer end, where it was but 12 feet wide, and one 6 inches in depth, at extreme low water.

## Department of Public Works.

During the fiscal year 1894-95 the sum of \$200 was expended in improving the channel and removing some boulders near the entrance. It has now a uniform width of 20 feet from end to end, and a depth at extreme low water of 1 foot 10 inches.

Spring tides rise 6 feet.

### TROUT COVE.

Trout Cove, Digby County, is situated on the Bay of Fundy coast of Digby Neck. It is about midway, and has the only breakwater affording shelter to fishing boats between Digby Gut and Petit Passage, being 18 miles south-west from the former and 12 miles north-east from the latter. The settlement at and near the cove is called Centreville and has a population of about 250 people engaged in fishing and farming.

During the year the sum of \$81.50 was expended in some much needed repairs to the breakwater. The work done consists of the practical rebuilding in a substantial manner of the small block of cribwork (24 feet long, 15 feet wide and 9 feet high) on the shore end of the north side of the work, and the placing of about 100 tons of ballast in the shore end of the breakwater to replace that washed out by heavy storms during the winter.

### WHITE HAVEN CANAL.

White Haven, Guysboro' County, one of the finest harbours in Nova Scotia, is on the south or Atlantic coast, 14 miles to the westward of Cape Canso. To the westward, and separated by a narrow peninsula terminating in Deming Point, is Tor Bay, eight miles in length, sheltered from the Atlantic Ocean by a series of islands and rock ledges. To the eastward is an almost continuous inland passage for boats and small vessels, to Canso Harbour, distant by water about 18 miles.

Marshall Cove, three miles inside of the western entrance, is separated from Witches Cove at the eastern extremity of Tor Bay, by a low and narrow isthmus, across which a canal for boats was commenced by the residents in 1854. Improvements were made from time to time by the residents aided by small grants from the Provincial Government up to 1876, in which year the canal was deepened and the sides protected by walls of dry masonry.

The canal is 620 feet in length, and from 10 to 12 feet in width. The bottom was originally about one foot above extreme low water.

During the fiscal year 1894-95 the sum of \$1,495.93 was expended in repairs and improvements. The walls had fallen into a dilapidated condition, the southern entrance had become blocked with sand, and the channel inside, had become filled in with sediment or washings from the slopes to a level of about 2 feet above extreme low water.

The improvements were made with the object of obtaining ultimately a uniform width between retaining walls, of 12 feet, and a depth of one foot at extreme low water.

Over a distance of 160 feet at the south end, the old walls were removed and new retaining walls 10 feet wide on the top, and respectively 9 feet 6 inches and 9 feet in height, were constructed on the east and west sides. These are of brush and stone (except 20 feet at the outer end of each, which is of cribwork) and are founded at extreme low water. Temporary repairs were made to the retaining walls on each side from 160 feet to 500 feet from the south end, and one hundred feet of wall on the west side, (500 to 600 feet from the south end) was constructed. New retaining walls of stone 141 feet in length were built on each side at the north end a distance of 741 feet. These are founded about 1 foot above low water and are one foot above high water at their inner, and one foot below high water at their outer ends. The bottom was excavated from end to end to from 3 to 6 inches above low water.

Spring tides rise 5 feet 6 inches.



## PROVINCE OF NEW BRUNSWICK.

## BUCTOUCHE.

Buctouche, Kent County, is situated on a river of the same name which empties into a small harbour in Northumberland Strait, 20 miles north of Shediac.

A public wharf 300 feet long with two approaches, built in 1884 by the department, was recently partially destroyed by a fire which devastated the village. In 1894-95 the work was, in part, repaired with an appropriation of \$1,500, four tiers of cribwork, floor stringers and covering being renewed, over a length of 140 feet and a width of 40 feet. The approach from the main street comprising 4 blocks and the same number of spans were entirely rebuilt at the same time, and some other covering replaced.

## CAPE TORMENTINE.

The works at Cape Tormentine in Westmoreland County, constructed between 1886 and 1892 for purposes of interprovincial traffic, form an artificial harbour at the extremity of a peninsula which is the nearest point on the continent to Prince Edward Island. They comprise a straight pier 2,500 feet long, with a head and return each 400 feet in length, inclosing a basin about 4 acres in area, having an extreme depth of 15 feet at low water, or 22 feet 8 inches at high water spring tides. For a distance of 1,300 feet from the shore, the pier is a rubble mound, 20 feet wide on top with pitched slopes of 2 to 1; while the remaining 1,200 feet is built of close-faced cribwork 30 feet in width. The head and return are of similar cribwork, but are 40 feet in breadth from the base up to low water, decreasing to 30 feet at the finished top (4 feet above high water), and presenting a sloping face sheathed with hardwood to the north and east. A branch railway 36 miles long connects the pier with the Intercolonial system at Sackville.

There being at least a 6 feet wave at Cape Tormentine, it was found that although the rails were secure where spiked to the cribwork, they were liable to be washed off the stone embankment which afforded no facilities for bolting. In 1893-94, they were therefore raised to 6 feet above high water on the embankment. At the same time a freight shed was built, and other conveniences arranged for the traffic. The tops of the cribs receiving the foot of the hardwood sheathing composing the sloping face having been destroyed by the teredo, the planks left over hanging were exposed below to the action of the sea. These planks were secured in 1893-94 as far as the worm-eaten condition of the timber permitted.

In 1894-95 a sum of \$491.58 was applied to replacing below the sloping planks, 321 lineal feet of worm-eaten longitudinals with new timbers, in relaying and bolting the hardwood to them, in laying 90 lineal feet of new planking, and in securing the remainder of one face with bolts where bolt-hold could be found.

The harbour is used during the season of navigation by vessels engaged in the deal trade with the United Kingdom, since it offers opportunity for shipping cargoes clean and bright from the train, without the loss of class occasioned by rafting.

## HOPEWELL CAPE.

Hopewell Cape, in Albert County, at the mouth of the Petitcodiac River, is one of several works on that stream intended for the convenience of shipping.

For the use of vessels proceeding for cargoes to Moncton, Hillsborough and Dorchester, the department in 1883 constructed a ballast wharf, which was afterwards extended to the present length of 592 feet.

In 1894-95, 69 floor stringers were renewed, 372 lineal feet of the work was replanked, and the covering in other places repaired. Three new mooring posts were also placed in the work, the expenditure amounting to \$600.

## NEGRO POINT BREAKWATER.

The Admiralty Sailing Directions describe St. John Harbour, on the north side of the Bay of Fundy, as being situated "at the head of the bay into which falls St. John River, the largest in New Brunswick, and one of the most remarkable and beautiful in America. The bay, upwards of three miles deep, lies between Meogenes Island, 5 miles E. by S.  $\frac{1}{2}$  S. The harbour is safe, commodious, and always accessible; and in consequence of the great rise and fall of tide, added to the velocity of the stream, its navigation even during the winter months is never impeded by ice. About  $1\frac{1}{2}$  mile southward of the city, Partridge Island forms a natural protection to the harbour, whilst its lights serve as a guide when approaching the entrance."

Inside the mouth of the bay, and half a mile north of Partridge Island (which divides the approach to the harbour into two channels), between Negro Point on the west, and Red Head on the east side, the estuary is contracted to a little more than two miles in width. In the principal entrance,  $1\frac{3}{4}$  miles across, on the east side of Partridge Island, a depth of 21 feet is found on the bar at low water ordinary spring tides, which rise 26 feet. The west channel, originally  $\frac{3}{8}$  mile broad, but now partially closed by Negro Point breakwater 2,200 feet long, gives by the chart about 13 feet at low water, where, 134 years ago, according to a survey made by R. G. Bruce, engineer, in 1761, the depth was 18 feet. Inside the harbour there is anchorage in 7 to 20 fathoms. The breakwater was undertaken for the following reason:

"With south-easterly winds, the sea is broken by Inner Mispeck Point, which bears south by west 2 miles from Red Head, and south-east by south the same distance from Partridge Island, and by the shoal water between Red Head and the main channel. South-westerly winds threw in a heavy sea through the western channel, which rendered it difficult for vessels to enter the harbour as they were in danger of being driven on the 'foul ground' (a shoal half a mile north of Partridge Island) on the eastern side of the channel. During 1874 and 1875, a thorough survey of the harbour with close and accurate soundings was made by the engineers of the department. In the spring of 1875, a breakwater 2,250 feet long, to partially close the western channel, was begun, and in September, 1877, completed."

The work consisted of a cribwork core, 30 feet wide at the base, and 15 feet wide on top, protected on both sides by stone sloping seawardly at the rate of two to one, and on the inside at the rate of one to one. In the month of February, 1879, 1,300 lineal feet of the cribwork was swept away by a heavy gale to a depth of 13 to 19 feet from the top, the stones having been naturally raked down by the action of the sea, to a slope more nearly approaching the angle of repose of the material under the exposure to which the work is subjected. In 1880 temporary repairs were made, and in the following year a contract, completed in 1887, was entered into, whereby the cribwork carried away in 1879 was replaced by heavy stone, sloped on the outside at the rate of three to one. Even this flatter slope proved steeper than the natural angle of repose, consequently, although the stones were of large size, and were smoothly laid, they were soon displaced by the sea. A length of 60 lineal feet of the breakwater, extending at full height beyond a pier of masonry, built under the same contract to support a beacon, was also swept away. Since 1891, desultory repairs have been made, the whole expenditure to the 30th June, 1894, being \$445,340.71. In 1894-95 a sum of \$3,297.51 was applied to the protection of the lighthouse at the extremity of the work, in the winter with stone, and in the summer with heavy concrete blocks built in place.

The breakwater, virtually of the type known as the rubble mound, has now been built long enough to allow sufficient consolidation of the original materials to permit the completion of the work by addition of a superstructure. The new top should be at least 10 feet above high water ordinary spring tides, which rise 26 feet), for the waves running free between the breakwater and the island are by estimation not less than 12 feet in height. It is evident that the work, originally 5 feet above, but now in several places below, the level of high water, has suffered in consequence of insufficient elevation, the inside slopes having been stripped off by waves coming

## Department of Public Works.

over the top. After the storm of the 9th February, 1895, many large stones bare of sea-weed could be observed on the inside of the work below the level of marine vegetation, which must have been thrown by force of the sea from the top or even from the seaward side of the top. At the inner end, where the foreshore has advanced 370 feet since the commencement of the work, there is evidence that the littoral drift, both wet and dry is carried over the top into the harbour. A marine dynamometer placed against the masonry of the lighthouse after the storm of the 9th February, recorded at the vernal equinox, a wave force of 4,000 lbs. per square foot, and it is possible that even this pressure may be in some cases exceeded. One stone measuring  $2\frac{1}{4}$  cubic yards was moved by the sea twice during the winter of 1894, for a distance of about 25 feet on each occasion. Another, said to have been more than double the size, entirely disappeared, having probably been washed over the end into deep water inside.

Under these conditions, it is clear that any work intended to be permanent, should be of high character, and it necessarily follows that the outlay must correspond with the class of work.

The highest waves occur, when, after a south-east storm, the wind veers to south-west. Reference to the chart will show that a passage 1,200 feet wide with 10 to 14 feet deep at low water still remains open between the end of the breakwater and Partridge Island, admitting from the south, to the channel inside, heavy seas, which roll directly across it to the foul ground. The original purpose of the work has thus been fulfilled only in part, since vessels must be still exposed to the danger of being carried on the foul ground (against which the breakwater was designed to guard), as long as any opening remains between Partridge Island and Negro Point. It is therefore a matter for consideration whether the breakwater should be first extended to the island and afterwards completed with pitched slopes and superstructure, or whether the part now built and consolidated should be finished first by immediate erection of the superstructure, and afterwards extended to Partridge Island. In any case action of some kind should be taken without delay in order to prevent further damage to the work, while especial attention should be directed to the promotion of accumulation of the littoral drift on the seaward side, and the formation of a natural protecting face. At present, southerly waves swirl round the beacon at the point of the breakwater, follow the ragged face inside to the shore below Fort Dufferin, and continue to roll northward along it. So heavy is this roll, that the department found it necessary to construct a high revetment of cribwork to arrest erosion of the cliff, which threatened destruction of the fort and other property. After extension to the island, further maintenance of this sea wall and also of the beacon at the point of the breakwater should be unnecessary. That Negro Point breakwater is a work important to commerce, the following particulars of the export trade in 1893-94 of the port of St. John will show :—

	No.	Tonnage.
Sea-going vessels left port.....	1,738	510,359
Coasters .....	1,886	126,155
Total .....	3,624	636,514

### *Value of Exports.*

Fisheries.....	\$ 222,597
Forest product; deals, timber, &c.....	2,913,415
Agriculture, animals, &c.....	199,076
Manufactures..	123,526
Miscellaneous.....	23,235
Total.....	\$3,481,849

## Department of Public Works.

### POINT DU CHÊNE (SHEDIAC).

Shediac Harbour, in Westmoreland County, an inlet of the Northumberland Strait, is situated about midway between Cape Gaspé and Cape North, being distant from each about 225 miles. It affords at present about 14 feet at low water spring tides, but that depth will be slightly increased when the dredging begun in 1890 has been completed. Shediac is considered by Admiral Bayfield to be easily accessible, and to be the only harbour of refuge on this part of the coast. Point du Chêne, on the south side of the entrance, was originally the terminus of the European and North American Railway. This line, 109 miles in length (a link of the present Intercolonial system), starting at St. John, traversed the southern part of New Brunswick from the Bay of Fundy to Northumberland Strait, the object being to facilitate trade between Quebec, Prince Edward Island, Pictou and St. John. According to levels taken at the time of construction, high water at Shediac where the tidal range is four feet, was found to be 10.7 feet below high water at St. John, where ordinary spring tides rise 26 feet.

For railway purposes, a pier 1,850 feet long, and 30 to 40 feet wide, with a head 150 feet in length, and 80 feet broad, was built in 1858 at Point du Chêne, but the place being infested by the teredo, the work soon became weakened and received much damage from easterly gales.

For the protection of the pier, the department built in 1875 a detached breakwater 600 feet long, and in 1879-80 connected it with the railway pier by a ballast wharf. In 1881-82, a further length of 600 feet was added by the construction of a second independent breakwater, placed nearer the shore.

The work built in 1875 having become worm-eaten, was destroyed, notwithstanding repairs, by storm in 1891. In 1893 a contract was made for the reconstruction of this breakwater, and in December, 1894, the work was completed. The new breakwater proper is 600 feet long and 27 feet wide below low water, sloping from a little above that level, at the rate of one to one until six feet above high water. At the northern end, connection was made with the damaged ballast wharf, by an additional length of 40 feet of similar work. The outside faces and cross ties of the substructure are creosoted timber, protected partly by close piles, and partly by fender piles also creosoted. The remaining timbers and also the superstructure are untreated wood. The expenditure during the fiscal year 1894-95 has been \$21,693.

Communication with the western part of Prince Edward Island is carried on by steamers between Point du Chêne and Summerside, about 40 miles distant. Direct trade in deals is also maintained with the United Kingdom, the value of last year's shipments being about \$30,000. A depth of 19 feet in the channel at high water, and loading berths alongside the wharf, giving the same depth at low water spring tides, constitute the requirements of this port. Before loading berths can be dredged, a new face should be given to the ballast wharf (200 feet long), which is thoroughly worm-eaten, and exhibits large gaps several tiers deep below water, through which some of the stone has escaped. Point du Chêne stands in importance sixth on the list of ports of New Brunswick whence shipments of deals were made to Europe.

### QUACO WEST.

At this place, 25 miles east of St. John, and in the county of that name, the department in 1891-92, re-opened the original channel of the stream, a tidal inlet, which had gradually worked westward parallel to and behind the beach, by the erection of a dam 205 feet long and 12 feet high. In 1894-95, a temporary gateway 30 feet long and 4 feet high, originally left as a precautionary measure was built up, the crest of the dam planked for 136 feet, and an apron of brush and stone placed along the work for about 150 feet. At the same time, the abutments of the dam were repaired and scoured holes were filled. The expenditure amounted to \$399.81.

### RIVER ST. JOHN.

The River St. John proper, 450 miles long, takes its rise from sources in the province of Quebec and the state of Maine, at a reputed maximum altitude of 2,158

feet above sea level. Entering New Brunswick at the confluence of the St. Francis, a little below the borders of Quebec, it continues to be the international boundary almost to Grand Falls, and after flowing through the province for nearly 300 miles, discharges into the Bay of Fundy at St. John. Many tributaries, some of considerable magnitude, are received by the main stream. Among them are the St. Francis, Madawaska, Green River, Grand River, Salmon River, Aroostook, Tobique, Presqu'Isle, Meduxnickag, Eel River, Nackawick, Keswick, Nashwaak, Oromocto, Jemseg (Grand Lake), Washademoak, Belle Isle, and Kennebecasis.

The total basin from source to mouth is computed to be 26,000 square miles, an area almost equal to the whole of New Brunswick, but part of the watershed lying outside, only a little more than one-half the province is drained by the river. The St. John is considered navigable for vessels of 15 feet draught for a distance of 50 miles from the mouth, but no positive information on this point has been obtained. A little less than 9 feet at low water can be carried to Fredericton 84 miles from the sea, and 6 miles below Springhill, the head of tide. Three natural features of river are remarkable, viz., the tidal falls, Grand Falls, and the annual floods. Although in summer the fresh water stream between Woodstock and Fredericton is 600 feet wide, expanding at the latter place after reaching tide level, half a mile in breadth, yet the actual mouth of the river, a rocky gorge 400 yards long immediately at the head of St. John Harbour, measures but as many feet across at high water. Here "at low water the level of the river water is from 11 to 15 feet above the sea and as the ordinary tides flow from 23 to 27 feet, the sea level at high water is from 8 to 12 feet higher than the waters of the river. Thus there are two falls during every tide, viz., one outward and one inward, and vessels can only pass when the waters of the ocean and the river are on a level, and this occurs only for the space of about 10 minutes during each ebb and flow of the tide; at all other times it is either impassable or extremely dangerous."

At Grand Falls, 223 miles from the sea, the whole volume of the river plunges over an almost perpendicular face of calcareous slate 60 feet high, into a deep ravine 250 feet across, somewhat similar to the narrow pass at St. John. Flanked for nearly a mile by lofty rugged cliffs, the confined current dashes from the foot of the falls with excessive strength, mining deep pot holes in the rocky bottom of the channel in the course of a further descent of 60 feet, according to report. In the harbour of St. John, ordinary spring tides rise 26 feet. At the wharfs of the river steamers, a mile above the falls while summer range is but 3 feet, the highest flood mark is 16.7 feet above extreme low water. At Oromocto, 73 miles from the sea, where the range of tide is 10 or 12 inches, the flood of 1887 reached a bridge 20 feet above low water. At Andover, 200 miles from the sea, high floods attain an elevation of more than 27 feet above summer level. By contrast, the Tobique and St. Francis swell but 9 and 6 feet respectively. After the first spate due to the melting of the snow in the catchment basins of the Kennebecasis, Belleisle Bay, and Washademoak, a secondary flood occurs, caused by the back water of the main river, which is fed from sources farther north, and consequently later in thawing.

The harbour of St. John is open all the year round, but the river is closed by ice from November to April, an average period of 144 days. Usually the water begins to rise in April, reaching flood pitch at the end of that month or early in May and maintaining a high level for two or three weeks. The ice run takes place before the time of highest water. By the middle or end of July, sometimes sooner or sometimes later, the water has fallen to low summer level, a stage lasting with some variations dependent upon the rainfall for about 60 or 70 days.

In addition to some coal, a considerable quantity of cordwood, and the ordinary food supplies yielded by farms of a lengthy valley rich in alluvium, the trade of the river comprehends an abundance of valuable timber, fluctuating each season in amount, but equal to at least 135 million superficial feet annually. Most of the logs are floated loose down the tributaries and upper river to Fredericton some being manufactured at the provincial capital, and shipped directly thence in coasting schooners, chiefly to the United States. The remainder, and major part, is towed

thence to St. John in rafts, giving employment to a fleet of tugs. For purposes of works the river may be divided into three divisions:—

1. Tidal navigation for steamers and sailing vessels from St. John to Fredericton, 84 miles, requiring 11 feet at low water. Principal obstructions: the shoal above Belmont, 3,000 feet long, and the Oromocto shoals, a little more than a mile and a half in length, giving at present rather less than 9 feet at low water.

2. Inland navigation from Fredericton to Woodstock, a distance of about 65 miles, requiring  $3\frac{1}{2}$  feet at low water. The obstacles to inland navigation, besides boulders in a few places, are shoals of materials more or less coarse according to the strength of the current, varying in composition from sandy gravel to stones. The chief bars are at Springhill and Bear Island, while Knapp's, Perley's Cove, Nackawick, Meductic, Belvisor, Moore's Bett's, Dibblee's, and Bedell's Bars, constitute, according to present information, minor obstructions. Dividing above Springhill into two main channels, and from a general width of 350 yards, opening to a stretch of  $1\frac{1}{2}$  miles between banks, with a waterway increased by one-third, the river becomes dotted with eyots and shallows. Two gravel shoals known as the Russell and Chapel Bars are together half a mile in length. At Bear Island 25 miles above Fredericton, in consequence of another division of the river into 3 channels aggregating 600 yards in breadth, a shoal of gravel and stones 4,400 feet long giving only 21 inches at low water has been formed. After re-uniting below, the width of waterway in the single channel is only 150 yards.

3. The upper river, including with the tributaries, all that part above Woodstock. This portion is used now for the passage of timber only.

#### *Division 1.*

Ten miles below Fredericton, and 74 above St. John, the river spreads from a normal width of less than 500 yards to a total breadth of  $1\frac{1}{2}$  miles between banks. This expansion and distribution of the waterway among three channels collectively 1,100 yards wide, formed by interposition of Oromocto and Thatch Islands, sufficiently accounts for the presence of the shoals. The eastern and largest of the channels 650 yards in width is only used during floods. The middle and navigable channel, 300 yards wide, has for many years been obstructed by the sandy deposit called the Oromocto Shoals, giving a little under 9 feet at low water. Another adjacent shoal extends from above Belmont for 3,000 feet in the direction of Smith's wharf. A third shoal patch, if it may be so called, giving slightly less than 11 feet is found at the foot of Oromocto Island. Between the Oromocto Shoals and the wharfs at Belmont, the channel requires in some places to be widened.

In order to improve the navigable channel, a dam 2,200 feet long was built by the department between 1877 and 1881, from the west bank of the river to the upper end of Thatch Island, completely closing the narrowest of the three channels when the water is below half ordinary flood level, and contracting the whole waterway by 150 yards. The first 100 feet adjoining the shore is of brush and stone, while the remainder of the dam is of cribwork, close-piled on the upper side and sheathed with plank. From the lower end of this dam, a cross-dyke of piling makes connection at nearly right angles to the main work, with the head of Thatch Island.

In 1894-95 a training dyke of stone founded on brush mattresses consisted of two new works of fascines inclosing a filling of evergreen brush, the whole loaded with stone 10 feet wide at the top, sloping to a width of 26 feet at the mattress, and footing against walings secured to piles. At the same time, brush and stone protection was placed along 600 feet of the dam, with good result, a considerable accumulation of silt having taken place in consequence on both sides of that work. The dyke is 203 feet long, and 5.5 feet above low water. Two hundred and eighty lineal feet of brush and stone protection were also placed on Oromocto Island, to prevent the alluvial bank from scouring under action of the current when increased by the works now begun.

## Department of Public Works.

A great deal of dredging has been done at the Oromocto Shoals, the total expenditure for 22 years ending June, 1894, amounting to \$49,025.53. In the past fiscal year, the "New Dominion" made one cut through the shoals, leaving a maximum depth of 12 feet and a minimum depth of  $8\frac{1}{2}$  feet.

### *Division 2.*

A commencement of the improvements contemplated for the purpose of opening and maintaining during the season steam navigation between Fredericton and Woodstock, was made in 1894-95. A Priestman grapple dredge, hired for the occasion, was set to work on the Russell Bar at Springhill on the 3rd September, and kept there until the close of the season on the 5th November. In this period, a channel 1,400 feet long and 40 feet in extreme width was excavated to a depth of 5 feet 6 inches at low water, the depth proposed for the inland navigation of the St. John.

### *Division 3.*

During the fiscal year an expenditure of \$300 authorized for the Tobique was applied to making channels for the passage of tow-boats conveying supplies to the lumber camps through Long Island, Traiton's Caribou, Burnt Land Brook, Oxbow Island, Blind Island, Blue's and Horse Island, Bars. Twenty-five boulders were also removed from Flanders Bar. It is fortunate that these improvements were made at the time, for the cut of the Tobique has more than doubled within the last year, and a larger class of tow-boat of comparatively deep draught was placed on the river. All the work was done above the limit of railway connection.

On the main river, between Grand Falls and Andover, blasting was done at the following places: Gardiner's Rock, Street's Rock, Little River Rapids, and Rapid de Faim Rock. According to present information, the St. John is in sufficiently good condition between Grand Falls and Woodstock, for the passage of timber. No steamers ply on that portion of the river. The expenditure was \$199.79.

At Grand Falls, a sum of \$580.69 was expended in blasting in the gorge, and in removing the top of Split Rock, a projecting crag in the face of the falls which has caused the destruction of large quantities of the timber annually passing over.

On the St. François, a sum of \$247.50 was applied in removing boulders from Horseback Rapids, and in making channels for tow-boats through Harvey's Bar, Jones' Bar and Gros Bar. This stream has now been placed in good condition.

### TYNEMOUTH CREEK.

Tynemouth Creek, St. John County, 21 miles east of the city of St. John, is one of several small havens dry at low water, to be found on both shores of the Bay of Fundy, which are only useful from the high range of tide, at this place about 28 feet. Inside a beach of gravel and stones, is found a tidal basin, accessible to small vessels at high water by an opening at the east end of the beach.

In 1874-75 the department built a substantial cribwork pier on the rocky fore-shore of the eastern cliff to prevent vessels from taking ground on that side.

In 1882-83 another work to maintain the channel was built on the point of the beach on the opposite side.

In 1894-95 a sum of \$225 from the general vote for Harbours, Maritime Provinces, was applied to re-placing some of the fenders and covering of the east pier, and in removing part of a rocky ledge obstructing the channel.

## PROVINCE OF PRINCE EDWARD ISLAND.

## BAY FORTUNE.

Bay Fortune Harbour, King's County, is situated on the south side of Rollo Bay on the east coast of the island and about 5 miles south-west from Souris, the eastern terminus of the Prince Edward Island Railway.

There has been expended during the year for the preservation of improvement made in the depth of the water on the bar at the entrance, a further sum of \$7500. The work done consisted in levelling up with squared timber (from 1 foot to 1½ feet high and 290 feet long) the channel side of the portion of the breakwater built by the department in 1892-93, putting in protection of brush and stone in the bottom, driving fender piles at 3 feet centres, and constructing new block of close-faced timber, fully ballasted, at the outer end in order to prevent scour caused by the increased current occasioned by the extension of breakwater, that was found to be undermining it. The inner end of the work has also been connected with the public wharf at the point of the bar by a beach protection of timber, brush and stone, to prevent the formation of a channel.

Much benefit is said to have resulted from the extension, &c., of the breakwater, the depth of water over the bar having increased 2 to 3 feet, thus permitting vessels drawing as much as 10 to 12 feet entering and leaving the harbour at high water.

## BAY VIEW.

Bay View Pier, Queen's County, is situated on the eastern side of and near the mouth of the Hope River, which enters New London Harbour about 3½ miles south-east from the harbour entrance. The pier has a length in all of 509 feet, 409 feet from the shore outwards being 20 feet in width increasing gradually to a width of 35 feet at the outer end; it is not exposed to any heavy sea but extreme high tides occurring during storms usually cause damage to the roadway, which is on the narrow portion, formed of clay and gravel filling.

Damage of this nature occurred during the autumn storms of 1894, and repairs were effected at a cost of \$21.75, the washout in the roadway being made up with broken stone and clay, well packed together, and it is hoped the roadway may not be disturbed for some seasons at least.

## CAMPBELL'S COVE.

Campbell's Cove, King's County, a small indenture in the coast line on the north side of the island, is situated about 9 miles west from East Point and 14 miles north-east from Souris (the eastern terminus of the Prince Edward Island Railway) and was selected by the Provincial Government in 1872 as the site for the construction of a small isolated breakwater 300 feet long by 30 feet in width, built on the reef that extends from the west end of the cove. Much benefit was derived from the work, both by the fishing and farming industries of the neighbourhood, and a refuge was afforded to fishing boats overtaken by storms.

When repairs to the work became necessary in 1882-83 the department thoroughly effected the same and also connected the breakwater with the shore and constructed an extension of 250 feet, making the work in all 620 feet long, giving a small area of shelter carrying 4 feet at low water spring tides, which rise 4 feet.

The repairs and additions made by the department being of a most substantial character, the work, notwithstanding its exposed situation, continued in good condition up to 1888-89, when some slight repairs to the planking and fenders were found to be required. After this date, however, principally due to the weakening of the timber face by the teredo, injury was done by each storm, and although extensive repairs were made in 1891-92, the work suffered severely in the spring and winter of 1893, 90 feet of its outer end being carried away to below low water and the remaining part of the work constructed by the department (154 feet long) having either the seaward face carried away or badly damaged.



## Department of Public Works.

During 1894-95 all of this damaged portion has been reconstructed at a cost of \$1,018.86, the new work on the seaward side being built with a batter of 1 in 12 or the face to the top instead of sloping  $1\frac{1}{2}$  to 1 above low water, thus permitting of better ballasting, and making the work 13 feet wider on top. The portion thus rebuilt is from 6 to 12 feet high and is thoroughly connected with the old work, the whole of the latter being well ballasted and repaired where required, recovered for a further length of 50 feet, and the present outer end bulk headed to prevent further injury for some time.

### CHINA POINT PIER.

China Point Pier, Queen's County, is on the west side of the Orwell River at its entrance into Orwell Bay. A pier was constructed at this point by the Local Government to provide a place of shipment for the produce of a large section of the country, and as a port of call for the passenger steamer plying tri-weekly between Charlottetown, Vernon River and other places on Orwell Bay. The pier is 426 feet in length with a return or L along the channel face 72 feet in length. It is from 18 to  $24\frac{1}{2}$  feet in width and is composed of a series of 8 solid blocks (not including the shore abutment or approach) with intervening openings spanned and planked over. The shore abutment (142 feet in length) and five inner blocks with brush stone and clay. The two outer blocks and one forming the L are also built close-faced of squared timber but are floor stringered and planked over. The pier was evidently badly located, or extended too far outwards to the deep channel which, within a short distance of its end, carries a depth of 40 feet at low water springs, the foundation of the pier-head, which is directly at the edge of the deep water channel, standing in 15 feet at low water and at high water springs 23 feet of water. Spring tides rise 8 feet. Less depth would have answered the requirements of the place and made it easier to have the structure in serviceable condition, which can now be done only by an almost yearly expenditure owing to the soft yielding nature of the bottom on which the pier-head rests, and the action of the teredo which is particularly destructive to unprotected timber in all of the island harbours.

During the fiscal year levelling up of the two outer blocks and connecting spans has been effected at a cost of \$500. The outer sides of the blocks were built up 6 and 9 feet respectively, fender piles have been driven at about 4 feet centres on the outer faces of the blocks, and will preserve the pier until again destroyed by the teredo.

### GEORGETOWN.

Georgetown, King's County, the terminus of the Georgetown Branch of the Prince Edward Island Railway and shiretown of the county, is situated on the western side of the Montague River near its entrance into Cardigan Bay. The harbour is well and favourably known as being one of the best and safest on the island, and is also the port of call for the steamer "Stanley" plying between Pictou and the island during the winter months. Before the construction of the railway, a large shipping business was done from the port for the accommodation of which the Local Government, many years before Confederation, constructed the wharf since known as the Queen's Pier, the control of which was assumed by the department in 1884. This wharf, which is centrally situated on the harbour front, has a length in all of 640 feet, with a width of from 30 to 36 feet. The shore end 340 feet long is of close-faced timber work filled with brush, stone and clay, the latter forming the roadway on top, while the outer length is composed of blocks and spans, there being six of each. All of the outer blocks and all the spans are floor stringered and planked over.

Being a very old structure when assumed by the department and also much out of repair, it has required, from time to time, considerable expenditure to keep it in serviceable condition.

During the fiscal year the sum of \$150 was expended in putting in 9 new span beams, or floor stringers, recovering 3 of the openings or spans, putting on new guard timbers and making up portions of the roadway with broken stone and gravel, where settlement or washout had taken place.

#### HURD'S POINT.

Hurd's Point, Prince County, is situated on the south side of the southern end of Bedeque or Summerside Harbour, and is about 3 miles south from the town of Summerside. A pier was constructed here many years ago by the Local Government and now forms an important outlet for a large and rich agricultural district which has no other means of communication except by post-road and is, therefore, largely used as a shipping place and is also a point of call for the ferry steamer plying four times daily between Summerside and Bedeque. Direct shipments are made from the pier to American and West Indian ports, for the accommodation of which service the department, some years ago, improved the approach by dredging. Sufficient width, however, was not given off the upper end of the pier head and vessels often touched when leaving or approaching the pier.

To remedy this, during the fiscal year the sum of \$201.81 has been expended in widening the approach and the basin at the end of the pier, the work being done through the ice by the mud diggers. A length of bank on the north side of the channel, 130 feet long, 5 to 20 feet wide, and averaging 2 feet in depth was removed, the material raised being hauled away by teams and deposited near the shore above low water mark.

#### KIER'S SHORE PIER.

Kier's Shore Pier, Prince County, is situated on the east side of Richmond Bay about 7 miles from the village of Kensington and is a station on the Prince Edward Island Railway. The pier, originally constructed jointly by the Local Government and residents of the district, has a length of 1,033 feet, and a width of 20 to 25 feet, and extends out to a depth of about 5 feet at low water or 10 feet at high water spring tides, which ordinarily rise 5 feet. With the exception of the inner 100 feet which is built of poles and brush and a span of  $17\frac{1}{2}$  feet long at a distance of 283 feet from the outer end, the work is constructed of close-faced timber, having its interior filled with brush and stone, with roadway of clay and gravel, except a length of  $45\frac{1}{2}$  feet at the outer end which is floor stringered and planked over. Owing to the work not having been built high enough in the first place or from settlement that has since occurred, storm tides in the fall of the year passed completely over the work always doing more or less damage and necessitating almost yearly expenditure to keep the roadway passable. Several grants, in all to about \$800, have been expended since its assumption by the department (in 1884) for making up and repair of the filling and roadway, but none of these repairs have proved durable owing to the work being too low.

This defect has been remedied in the spring of 1895, all of the work being raised to 2 feet above the highest storm tides, and the outer 50 feet widened 18 feet, the sum expended amounting to \$2,936.06.

#### LAMBERT'S PIER.

Lambert's Pier, King's County, is situated on the southern side of the Montague River, immediately below the highway bridge leading to Montague Village, six miles from the entrance of the river into Cardigan Bay, and is one of the piers assumed by the Dominion Government in 1884. It has a frontage of 310 feet on the river channel, and consists of two sections, the upper, or western one, being 140 feet long and 24 feet wide, constructed of cribwork on the inside and pile work on the outside, while the lower or eastern section, 170 feet long, and 25 feet wide, is formed entirely of piling, floor stringered, capped and planked over. The inner side

## Department of Public Works.

of the western section is made up of ballast discharged from vessels and connects with the bank of the river and forms a good approach to the pier. The piling being of native and unprotected wood, suffers severely from the ravages of the teredo and necessitates renewals nearly every season.

Twelve bedding and fender piles were renewed during the year and general repairs to the covering were made at a cost of \$150.

### MIMINEGASH.

Miminegash, Prince County, is situated on the north-west coast of the island, about 15 miles from North Cape and 18 miles from West Point. The place is now one of the best and most convenient fishing stations in the county, great benefit being derived from the works constructed by the department which have so improved the run, as to admit of the entrance of the larger fishing boats at almost all stages of the tide, and of small coasting schooners at high water, being previously only available for the smaller boats at high water. The works consist of breakwaters or piers on either side of the run, confining its width to 56 feet at its outlet into the Straits of Northumberland. The pier on the northern side has a length of 535 feet, and that on the southern side of 350 feet, there being, inward of the latter, a beach protection work 270 feet long, to guard against scour and formation of a new channel and outlet at the back of the southern pier or breakwater.

During 1894-95 the sum of \$500 has been expended in building up and close piling the inner 150 feet of the beach protection, in repairing and ballasting the southern breakwater, and in close piling a length of 40 feet of the channel face of the northern breakwater where a break and settlement had occurred through scour and action of running ice.

### NEW LONDON.

New London Harbour, Queen's County, or Grenville Bay, is situated on the northern coast of the island about 10 miles south-west from the entrance into Richmond Bay. Within the entrance, which is about 1,200 feet wide, the bay is three miles wide and receives the waters of the south-west, the French the Stanley and the Hope Rivers, all of which are navigable and have on them wharfs or shipping places by which export is made of about all surplus produce raised in the surrounding country, and at which the coal, limestone, and general merchandise required is landed. It is extensively used as a fishing station, being near some of the best fishing grounds on the Gulf of St. Lawrence.

For the improvement of the entrance works were commenced by the department in 1874 and now consist of breakwaters extending on either side from the sand beaches. That on the eastern side has a length of 1,120 feet and the western 460 feet; their purpose being to confine the current and direct it upon an outer obstructing bar composed of sand, and to prevent the sand from being washed into the channel inside. The results obtained have proved most satisfactory, proportional to the expenditure. The depth of water on the bar has increased from 6 to 12 feet at low water, making the harbour one of the best on the coast. The breakwaters are built partly of piling, brush and stone and partly of cribwork, the outer blocks of each being built of close faced squared timber-work. Since their construction the western work has received no damage or required repair; the eastern, however, being exposed to a very heavy sea, and its outer end to constant action of the ice in winter, has, from time to time, suffered severely and required extensive repair. During the fall and winter of 1893 injury was done to the covering and fenders of the outer block which was completely destroyed during the fall and winter of 1894, and four breaches respectively 30, 63, 56, and 44 feet long, were made through the beach protection works.

During 1894-95 these breaches have been so far repaired as to prevent further injury and the reconstruction of the outer block has been commenced, the amount expended during the fiscal year amounting to \$624.08.

## NORTH CARDIGAN PIER.

North Cardigan Pier, King's County, (known in locality as Newport Pier) is situated on the north side of the Cardigan River, 5 miles below Cardigan Bridge, the head of navigation, and a station on the line of the Prince Edward Island Railway. The pier has a length of 381 feet, consisting of a shore abutment or approach and seven blocks with intervening openings or spans. It is from 23 to 25 feet wide out to the outer block or pier head which has a width of 32 feet. The shore abutment is 100 feet long of blocks from 19 to 26 feet, and the Spans from 14 to 26 feet. All of the work is constructed close-faced of squared timber filled with brush, stone and gravel, the latter forming the roadway, excepting the two outer blocks which, like the spans, are floor stringered and planked over. Being a very old structure and much out of repair, when its control was assumed by the department in 1884, there have been required almost yearly expenditures, generally of a temporary nature, to keep it in passable condition.

During 1894-95 some slight repairs to the planking and blocking up of floor stringers were effected at a cost of \$6.20.

## PINETTE PIER.

Pinette Pier, Queen's County, is situated on the south side of the Pinette River immediately below and at right angles to the public road bridge, crossing the river, with which it is connected by a span 28 feet in length. The pier is 120 feet long by 28 feet wide, having along its face a depth of 8 feet at low water springs. It is constructed of squared timber close-faced, fendered, floor stringered and planked over.

During the fiscal year 1894-95 the sum of \$100 has been expended in repairing and renewing portions of the floor stringers and covering in the centre and south of the pier where the roadway had completely broken down owing to age and decay.

## RUSTICO.

Rustico, Queen's County, the most important fishing station on the northern coast of Prince Edward Island, is situated about nearly equidistant between North Cape and East Point.

During 1881-82-83-84 breakwaters were built on each side of the entrance to the harbour for the purpose of concentrating the ebb current upon the outer bar, to scour away the sand and thus obtain better water over it. The results proved most satisfactory, the depth of water on the bar being increased from 3 to 4 feet, which, added to the former depth, gives at present at low water spring, from 8 to 9 feet of water and at high water from 11 to 12 feet.

The breakwater on the northern side is the most important as it protects an inner beach, on which most of the fishing stages are situated. It was originally 1,240 feet in length but by storms occurring from time to time up to 1893, a length of 120 feet was damaged and carried away, a further length of 150 feet inward being severely injured. This was repaired in 1883-84 and the end bulkheaded to prevent further injury.

A contract was entered into 12th March, 1895, for the construction of an outer block 30 x 60 feet and for the widening and raising of the adjoining 140 feet. Construction was commenced by the middle of May, 1895, and at the close of the fiscal year about one-third of the work had been completed.

## SOURIS HARBOUR.

Souris Harbour, King's County, situated about 16 miles to the westward of East Point, is most important as a shipping point, being the eastern terminus of the Prince Edward Island Railway, which has a deep water wharf, from which shipments can be made later in the fall and earlier in the spring than at any other port of the

## Department of Public Works.

island. It is also largely used during the season of navigation as a place of refuge by coasters and fishermen, the breakwater constructed by the department making it available for approach and a perfectly safe refuge in all winds. The work has, in all, a length of 1,200 feet (270 feet of which was constructed by the Local Government previous to Confederation) but as it stands in deep water (18 to 20 feet at low tide) and is exposed to the full force of the sea during southerly gales, it has, since construction, required from time to time extensive repairs, due greatly to the destructive action of the teredo and to the fact that the quality of stone procurable for ballast on the island is not of a durable character.

During the fiscal year 1894-95 the sum of \$1,104.62 has been expended in rebuilding a length of 50 feet of the seaward face and in ballasting and recovering 100 feet of the inner section or portion of the breakwater constructed by the Local Government, and in general repairs to the remainder of the work.

### STEPHEN'S PIER.

Stephen's Pier, King's County, is situated on the southern side of the Montague River about 6 miles above its entrance into Cardigan Bay, and immediately below Lambert's Pier and Montague Bridge. It consists of two wings or approaches about 50 feet apart, extending out from the bank of the river to the edge of the channel where the pier-head has a frontage of 100 feet. The wings or approaches are respectively 90 and 150 feet long and are formed of close-faced timber work, the space between them being filled with stone, brush and gravel, connecting with the pier head by spans or openings, floor stringered and planked over. The pier head is built of pile bents, capped, floor stringered, etc.

During the fiscal year 1894-95 the sum of \$35 was expended in filling in solidly with stone the span connecting the eastern wing or approach, the floor stringers and planking of which had given away owing to natural decay.

### ST. MARY'S BAY PIER.

Saint Mary's Bay Pier, King's County, is situated on the south side of Saint Mary's Bay (which forms the southern part of Cardigan Bay), and to about 7 miles south of Georgetown the shiretown of King's County. The pier is 407 feet long, 310 feet of which is 21 feet wide, the outer and 97 feet being 28 to 29 feet wide. It is composed of a shore abutment and 7 blocks and spans, the blocks being built of squared timber and close-faced.

During the fiscal year 1894-95 the sum of \$500 has been expended in close piling the two outer blocks, in putting in new guard timbers and in general repairs to the roadway placing the whole for a time in good and serviceable condition.

### WOOD ISLANDS.

Wood Islands, lot 62, Queen's County, are situated on the Strait of Northumberland, about 15 miles to the westward of Cape Bear, and are the most southerly point of Prince Edward Island. They are two in number, lie parallel with the shore, from which they are distant about half a mile, and are connected by a small sand beach, and also by another beach extending from the western end of the western island to the mainland, forming a total length of nearly a mile, a pond is thus inclosed having an area of about 300 acres, with its outlet at the south-eastern corner.

This pond is too shallow to serve even as a boat harbour, and an attempt was made to form a shelter for boats and small vessels by the construction of works extending eastwardly, from the sand pit and parallel with the shore, with the expectation that scour would be produced by the tidal outflow from the pond and a deepening of the channel so formed would take place, but the attempt resulted in failure. The work, which was constructed by the Local Government, was 2,530 feet in length, of varying heights and widths, and built of brush and stone for a foundation with a superstructure of timber cribwork.

During 1878-79 a breakwater 350 feet in length was constructed by the department, on the western side of the entrance, and during the same year an attempt was made to deepen the channel along the eastern breakwater, but the work had to be abandoned.

Between 1880 and 1885 the sum of \$8,871.16 was expended in extending the western breakwater, and during 1886 the sum of \$1,000 was spent in effecting necessary repairs to the eastern breakwater.

In December, 1893, a contract was entered into for the reconstruction and repair of the eastern breakwater, and at the close of the fiscal year about one-third of the work contracted for had been completed.

On the 30th November, 1894, the work under contract was satisfactorily completed, and has already given promise of great benefit to the district as a shipping point, the depth of water having increased two feet, which it is hoped will continue without the aid of a dredge.

## PROVINCE OF QUEBEC.

### BAIE ST. PAUL.

Baie St. Paul is on the north shore of the St. Lawrence River in the county of Charlevoix, 60 miles east of Quebec.

During last winter a contract was entered into for the construction of an extension to the wharf, 100 feet long, 30 feet wide. Work was commenced in the first days of May and on the last of June nearly half of the total had been constructed.

During the months of August and September last the sheathing on the outer corner of the isolated block was renewed, 18 pieces of 10-inch square elm 30 feet long, being employed for this purpose, the face timbers broken by ice on the eastern side were repaired and sheathed over with 5-inch elm planks, the inner portion of the block was raised and levelled, new stringers added and the top planking was renewed on the whole length of the block, 200 feet; the cap pieces were renewed, and four toise of stone ballast were put in the block to replace that fallen out through the place broken by ice, about 150 pieces of 5 inch spruce sheathing were also replaced on the western side and inner end. The work was done by day labour at a cost of \$1,464.60.

Spring tides rise 20 feet, neap tides 13 feet.

### CACOUNA.

Cacouna is in the county of Temiscouata, on the south shore of the River St. Lawrence. The village lies 3 miles north of the Intercolonial Railway and 5 miles to the eastward of River du Loup Point.

Three or four years ago an isolated block 103 feet in length, 24 feet wide, with respective heights of 17 and 16 feet at the outer and inner ends, was built off the point. During 1894-95 the work was extended shorewards, a distance of 60 feet, 22 feet wide, and 16 feet in height. The work is built of open faced square timbers, sheathed all over with 3-inch spruce planks. The corner angles are protected with 4-inch rock elm extending the whole height and 4 feet on each side, with iron straps 4 by  $\frac{5}{8}$  inches. Elm fenders were placed every 8 feet on both sides. In addition to this sheathing of the old block was completed to the top, and the seaward face was also sheathed over its whole surface and elm fenders were placed where required. The top corner was raised 5 inches.

The expenditure amounted to \$1,957.42.

### CAP DE LA MAGDELEINE.

The parish of Cap de la Magdeleine is in the county of Champlain, on the north shore of the River St. Lawrence, three miles below Three Rivers.

Since the construction of a wharf in 1887 by the government, the traffic between Cap de la Magdeleine and Three Rivers has greatly increased by water, boats also ply between the parish of the Cape and Nicolet, Gentilly and Champlain.

## Department of Public Works.

In September, 1894, an agreement was entered into with Mr. L. E. Normand to build an extension and raise the old wharf, in accordance with plans and specifications furnished him, for the sum of \$2,800.

The principal work done at this place was the construction of an extension to the wharf eastwardly. This extension consisted in a block 40 feet in length, 24 feet in width and 19 feet 6 inches in height. The old portion of the wharf was raised to the height of the new pier and new caps and stringers were placed and new flooring laid.

The surface of the wharf measures now 87 feet frontage exclusive of the ice breaker, by 22 feet 6 inches in width with a landing slip 11 feet wide. The surface of the approach is 250 feet in length by 23 feet 6 inches in width. The height of the pier in front is 14 feet 6 inches above low water level and 5 feet in the water.

The work was commenced on the 8th October, 1894, and was completed on the 22nd January, 1895, according to plan and specifications, the total expenditure amounting to \$2,837.75.

### CHICOUTIMI.

Chicoutimi, in the county of that name, is situated at the head of navigation on the Saguenay River, 71½ miles above Tadoussac.

During the fiscal year 1894-95 the old sheathing 152 feet by 21 feet on the outer part of the head of the wharf was taken off and replaced.

Six inch red spruce sheathing, 50 feet of flooring 25 feet wide, was laid, and the sheds on the wharf were repaired and painted; the cost of the whole being \$1,993.27.

### ETANG DU NORD.

Etang du Nord, is at the western end of Grindstone Island, one of the Magdalen Islands, in the Gulf of St. Lawrence. The island in question is irregular in shape, and about 7½ miles long by 4½ wide. The coast is indented by small bays and coves, and there are good fishing stations, the principal being at Etang du Nord. This indentation is small, but offers a safe shelter for boats in 3 to 5 feet of water at low tide.

During 1894-95 the sum of \$1,999.90 was expended in procuring materials, such as hardwood sheathing 13 and 15 feet long by 6 inches and average width of 12 inches, bar iron, coals for forge work, &c., all brought over from Pictou, the cost of which was \$881.26.

The sum of \$1,118.64 was spent for day's labour, including blasting and hauling of some 82 toises of stone ballast wanted in the works.

The face timbers on the slope of the structure had got somewhat injured by the ice and 86 feet, mostly all under water which had been carried away, had to be replaced by new timbers, the inside, on a length of 200 feet, being at the same time strengthened with cross timbers and stone and frame work in the different pockets.

The slope or inclined face was repaired on a length of 113 feet by replacing the old damaged soft wood sheathing with hardwood, 6 inches and 13 and 15 feet long, well secured with iron ¾ and ¾-inch bolts instead of the soft wood treenails formerly used.

### GRANDES BERGERONNES.

At Grandes Bergeronnes, 18 miles east of Tadoussac, the channel of the river was improved for a length of ½ mile by a width of 50 feet, by blasting and removing some large boulders and other obstructions.

The amount expended was \$299.94.

### GRANDE DECHARGE, LAKE ST. JOHN.

At Grande Décharge, 17 miles from Roberval the floating pontoon at Island House, was transferred to the Government and \$500 were expended in lengthening it 40 feet by 20 feet.

## ISLE VERTE.

On the south shore of the St. Lawrence, 17 miles to the eastward of River du Loup Point and one mile north of the Intercolonial Railway, is the village of Isle Verte, in the County of Témiscouata.

Opposite the village and 3 miles from the shore is an island also called "Isle Verte"; about 100 people living on it. The wharf built at the village of Isle Verte is very useful to the inhabitants of the island, and has a length of 1,750 feet.

During 1893-94 the outer block was planked and the north and east sides were sheathed with rock elm, and during 1894-95 the west and south sides were sheathed and other work performed at a cost of \$922.91.

As it now stands the block is bound with such a heavy coat of elm that it is believed it will not give way for a long time.

## LAKE ST. JOHN DISTRICT.

Buoys were placed on a distance of 25 miles on the Mistassini River, and on the River Asshouapmouchouan, on a distance of 15 miles, while the River Peribonka was buoyed for 5 miles.

These rivers flow into Lake St. John.

The amount expended was \$500.

## MATANE.

On either side of the River Matane, which empties into the St. Lawrence on the south shore, is the village of Matane, in the County of Rimouski.

This village is 30 miles distant from Little Metis Station, the nearest point on the Intercolonial Railway, its distance from Quebec being about 240 miles.

Two wharfs have been built by the department. One at the extreme mouth of the River Matane, the other nearly  $\frac{1}{4}$  of a mile up the river, and during 1894-95 the former was partly repaired.

This wharf is built on the west shore of River Matane and runs parallel to it. It is 500 feet in length, 23 feet in height on the seaward side, which was formerly protected by a row of piles driven into the clay and fastened to the wharf. These piles have been broken by the ice and have almost all disappeared. The corner angles of the piers being unprotected were badly damaged. The work consisted in repairing the piers and the row of piles in front of the pier were renewed for a length of 400 feet and general repairs effected. Spring tides rise 12 feet.

The amount expended was \$998.33.

## MURRAY BAY.

Murray Bay is on the north shore of the River St. Lawrence, in the County of Charlevoix, 85 miles east of Quebec.

During the month of September the face timbers broken by ice on the western side of the new extension were repaired and that side was further protected with 5-inch spruce sheathing.

The work was done by day labour at a cost of \$100.10.

## NEW CARLISLE.

New Carlisle is the *chef lieu* of the County of Bonaventure, and is on the north shore of the Baie des Chaleurs and 65 miles from Campbelltown, N.B.

The work done at this wharf consisted in renewing 700 feet of flooring with 3-inch deals and blocking up the stringers under same.

1,050 feet B.M. of 2-inch deals were used in covering over (the old floor) part of the middle roadway, on a length of 96 feet and 12 feet wide on the old wharf.



## Department of Public Works.

On the new extension of 1890, the north-east corner which had considerably settled down, the flooring which was somewhat broken up, was put in order and 80 feet of guard timbers placed over the cap timbers to prevent freight rolling off the pier.

Other sundry small repairs were made here and there to prevent accidents.

The expenditure amounted to \$111.15.

### PETITE RIVIÈRE ST. FRANÇOIS.

Petite Rivière St. François is on the north shore of the St. Lawrence, in the County of Charlevoix, 10 miles west of Baie St. Paul and 50 miles east of Quebec.

During the month of November last part of the boulders obstructing the channel frequented by schooners entering the bay at high water were removed.

The work was done by day's labour at a cost of \$101.00.

Spring tides rise 19 feet, neap tides 13 feet.

### PORT DANIEL.

Port Daniel, Bonaventure County, is situated on the Baie des Chaleurs, 50 miles from Percé.

The works done at Port Daniel during the fiscal year 1894-95 consisted in raising up the extension block of 1890 to the original height of pier previously built.

This block of 50 x 75 feet had settled down to such an extent that it was found necessary to lift up flooring, some cross and longitudinal ties and build up as follows: North-east corner 56 inches, running to 45 inches in height at south-east corner; sea-face 45 inches high all over; south-west corner 45 inches to 23 inches at north-west corner and from this latter to join north-east corner 23 to 56 inches in height.

Black birch sheathing was placed all around, the raised portion resting on sheathing of depressed portion. The height of flooring above June spring high tide is only 5 feet 6 inches; however a cap piece of 12 x 12 inches has been put on for better protection against the waves in stormy weather.

The expenditure was limited to the appropriation of \$1,000.

### QUEEN'S WHARF, QUEBEC.

During the last fiscal year 3 new mooring posts and 2 upright projecting elm fenders were placed on the wharf at a cost of \$58.52.

### RIVER DU LIÈVRE, LITTLE RAPIDS.

The lock and dam built by the department are situated at the Little Rapids, 12 miles above the village of Buckingham. The lock is 150 feet in length between the gates and the width 31 feet, the lift being 13 feet 9 inches at low water.

During the fiscal year 1894-95 the sum of \$262.95 was expended in building a protection pier above the west abutment of the dam, to prevent the river during freshet time from working in back of the abutment.

### RIVIÈRE DU SUD.

The town of Montmagny in the county of the same name is situated along the Intercolonial Railway, 40 miles to the eastward of Quebec. It is a prosperous place with a population of about 4,000.

From south-west to south-east, the town is crossed by the "Rivière du Sud." Owing to the united actions of ice and swift current the banks were eroded especially on the south-east side where the public road was partly washed away.

To prevent further damage a contract was entered into for construction of protection work which was commenced in December, 1894 and completed in May, 1895.

The work consists of a stone wall 830 feet in length, by a depth of 7 feet at the base tapering to 5 feet at the top, with a mean height of 7 feet. It starts near the

Intercolonial Railway bridge and runs southward and parallel to the bank of the river on the south-east side. The masonry is a granite ranged dry marble standing over a hard bottom of sand and small pebbles. The back filling is done with broken stones. Two box culverts have been constructed to allow the flow of water from the adjoining lands.

The amount expended was \$4,966.

#### RIVER ST. MAURICE.

The River St. Maurice flows southward and empties into the St. Lawrence at Three Rivers.

From its outlet to Grandes Piles, a distance of 37 miles, this river is not navigable, owing to the numerous falls and rapids which follow each other without much intermission, but above Grandes Piles up to La Tuque, a distance of 66 miles, there is a good channel for vessels drawing less than two feet six inches of water.

The greatest impediments to navigation are at the shoals at the Mekinac, Pointe à Tom, the shoal at l'île aux Morpions, also at Pointe à Trudel near Grandes Piles, and at the Rapid Manigance.

The work done consists in the placing of land marks and buoys to indicate the best channel at the shallowest places, between Grandes Piles and La Tuque, and in deepening the channel at the Mekinac shoal, l'île aux Morpions and Pointe à Trudel shoal.

On the 13th September, 1894, Mr. Ritchie's boat could not pass at Mekinac shoal when the water level was at 4.5 feet on gauge at Grandes Piles, at the end of September the water had receded to 3.4 feet on gauge, and the same boat could not pass at this stage of water. The shoal has been deepened to 5 feet of water.

Thirty-nine land marks have been established on the river bank to indicate the channel, and 71 buoys have been kept during the navigable season to indicate the best channel at the shallowest places between Grandes Piles and La Tuque.

The work was all done with shovels and the material shovelled (chiefly gravel and small stones) was deposited on the booms, and afterwards dumped into the river, outside of the channel.

At the opening of navigation, in June last, the number of land marks was increased to 57 and 63 buoys have been placed to indicate the best channel at the shallowest places between Grandes Piles and La Tuque.

The amount expended on this work was \$2,832.55.

#### ROBERVAL.

Roberval is situated on Lake St. John, 190 miles north of Quebec.

A crib 50 feet long, 21 feet wide and 26 feet in height was built at the north-east end of the wharf, 15 red spruce fenders placed around it and 5 mooring posts were put in. A slip was constructed at the end of the crib.

The channel of the Ouïatchonamiche River was deepened and widened—2,750 cubic yards of earth and about 60 boulders of various sizes being removed.

The expenditure during the year amounted to \$4,200.31.

#### ST. JEAN, ISLAND OF ORLEANS.

St. Jean, Montmorency County, is on the south shore of the Island of Orleans and is distant from St. Laurent 7 miles.

The work done on St. Jean pier during the last fiscal year was as follows :— It was found necessary to remove from 8 to 9 feet in depth of the outer 207 feet, and build up the whole anew. Another portion further in shore was also renewed measuring on west side 5 feet 9 inches in depth ; on east side from 3 feet to 5 feet 9 inches by 150 in length.

The work is close-faced, crib timber being used, sawn 12 x 12 inch and 12 x 14 inch, pine for facing and rough 10 x 11 inch 11 x 12 inch and 12 x 12 inch pine and

## Department of Public Works.

flat and square cedar, for ties and stringers. Nothing but pine, tamarack and cypress or black spruce deals were used for planking and sheathing. Sixteen new mooring posts and six long fenders rock elm posts, extending 4 feet above pier, were also placed on outer end block, well seamed with tamarack knees.

The lighthouse was removed, foundations rebuilt and building strengthened with tamarack knees ; all the slips east, centre and west, well repaired.

The following materials were used :—

Planks 3 inch pine .....	13,061	
do do tamarack .....	13,513	}
do do cypress .....	22,550	
Black birch sheathing 3 inch.....	6,800	feet B.M.
Rock elm sheathing and fenders .....	6,108	do
Cedar square and flat.....	3,178	lin. feet.
Pine sawn 12 x 12 inch and 12 x 14 inch.....	7,800	cub. feet.
Pine rough 10 x 12 inch up to 12 x 12 inch.	5,644	lin. feet.

At the close of the fiscal year the sheathing of the east side with hardwood, pine and cypress deals was in progress and repairs to west slip (lower part). The work has been well done and considering the labour required to pull down old work, the cost per cubic yard is very reasonable.

### ST. LAURENT.

St. Laurent is on the south shore of the Island of Orleans in the County of Montmorency, 10 miles east of Quebec.

During the month of August last 75 planks were renewed in the top flooring and an incline or ramp was built from the outer block to the old wharf which have different heights.

The work was done by day labour at a cost of \$56.

Spring tides rise 19 feet, neap tides 13 feet.

### ST. MICHEL.

St. Michel is on the south shore of the River St. Lawrence, in the County of Bellechasse, 15 miles east of Quebec.

During the months of September and October the top planking was renewed on a length of 326 feet with 3-inch planks, the stringers and planking of the landing slip were renewed and the north-east side of the wharf was sheathed with 3-inch planks on a length of 270 feet on an average height of 20 feet; 10 fenders were also replaced.

The work was done by day labour at a cost of \$802.23.

Spring tides rise 20 feet; neap tides 13 feet.

### TOULADIE RIVER.

The Madawaska River has its source in Lake Temiscouata and empties into the St. John River at Edmundston, New Brunswick. Lake Temiscouata is connected with Lake Touladie River, which is considered a branch of the Madawaska.

During 1893-94 work was done on the Touladie improving the channel, and during 1894-95 the work of improvement was continued especially on the tow-path which was completed.

The object of the work is to allow long boats to get up into Lake Touladie, an impossibility before, on account of boulders and other obstructions which have now been removed.

After the tow-path was completed, some blasting was done at the little fall, half a mile distant from Lake Touladie.

The expenditure amounted to \$386.45.

## TROIS PISTOLES.

Trois Pistoles, in the County of Temiscouata, is a village on the Intercolonial Railway, 25 miles below River du Loup. The land in the vicinity is fertile and the place is flourishing.

The improvements and repairs made to the wharf during 1894-95 are as follows:—

At about the centre of the pier, the courses on both sides were not carried up to the full height, and there were openings left which allowed the waves and ice to go through, causing much strain upon the flooring. These openings which extended over a length of 105 feet, were closed in by adding the necessary courses, up to the level of the adjoining parts, and the floor was extended.

This gives more mooring space for vessels and more room for carriages. The part of the wharf which extends from the shore for a length of 460 feet is only 18 feet wide. This was considered dangerous and accordingly garde-fous have been constructed on both sides over a length of 350 feet. Two hundred spruce planks were used in repairing the flooring. The stone ballast was increased by over 200 loads of stone, and with the small balance left, some bad rocks were blasted near the head of the pier. Spring tides rise 16.5 feet.

The expenditure amounted to \$998.89.

## YAMASKA LOCK, 1894-95.

The Yamaska River flows through the County of Yamaska, emptying into the St. Lawrence 8 miles below the town of Sorel, on the southern shore of Lake St. Peter.

The lock, which is situated about 4½ miles from the outlet of the river, has been kept in good working order all summer. It was opened on the 21st April, and closed on the 18th November, during which period there were 232 lockages, viz., 168 steamboats, 66 schooners and barges and 58 small craft of various dimensions.

On the 17th August, 1893, the regulations for the management and working of the lock were put in force. The revenue accrued during the navigable season of 1894 amounted to \$281.37 which represents an average of a little less than \$1 for every time the lock was opened during the summer.

On the 10th September, 1894, it was reported that the cribwork at the east end of the dam had undermined, leaving a large break. This gap has been filled in with bags of sand and soil taken from the river bank and with 20 toises of stone ballast.

The total amount of expenditure for staff was \$616 and for maintenance and repairs \$396.30; in all \$1,012.30.

## PROVINCE OF ONTARIO.

## BURLINGTON CHANNEL.

Burlington Channel is a channel through Burlington Beach, and connects the waters of Lake Ontario with Burlington Bay.

Considerable repairs were made to the east pier, which has been undermined by the action of the screws of steamers calling at the pier to land and embark passengers.

## DYER'S BAY.

Dyer's Bay is situated on the east shore of the Georgian Bay, Bruce County, North Riding, about 50 miles north of Wiarton. At the last session of Parliament the sum of \$3,500 was voted for the construction of a landing pier at this place. Plans and specifications were prepared and the work let to Mr. David Porter, contractor, Wiarton, on the 25th August, to construct a pier 210 feet in length and 20 feet wide; consisting of an approach 70 feet in length; 2 cribs 25 feet by 20 feet

## Department of Public Works.

and one outer crib 30 by 20 feet, with three spaces 20 feet by 20 feet decked, for the sum of \$3,150. Work was at once commenced and the structure finished on the 7th September. The total amount expended was \$3,219.15.

### GODERICH.

Goderich is situated in the County of Huron on the east side of Lake Huron at the mouth of the Maitland River, about 68 miles from Sarnia, 60 miles from London and 44 from Stratford. Population 4,000.

On the 20th April, 1893, a contract was entered into with Messrs. Brewder and McNaughton of Ottawa, to extend the north pier 410 feet in length and the south pier 110 feet in length and to dredge berths for the same. Active operations were commenced in March last and the whole of the work completed on the 7th November.

The expenditure to the close of the fiscal year ending 30th June, 1895, was \$36,919.

### KINGSTON HARBOUR.

Kingston, Frontenac County, is at the lower end of Lake Ontario, and is 172 miles above Montreal and 43 below Belleville.

The removal of the Point Frederick shoal was continued during the fiscal year 1894-95, the result being the removal of 1,978 cubic yards of rock.

The hoisting scow and four stone scows were thoroughly repaired during the spring, and the total expenditure during the year amounted to \$5,769.04.

### KINGSVILLE.

Kingsville is in the electoral district of South Essex on the north shore of Lake Erie; it is a station upon the Detroit, Essex and Lake Erie Railway, and is distant about 25 miles east from the mouth of the Detroit River.

Authority was given to expend the sum of \$400 in effecting immediate and necessary repairs to the landing pier.

Work was commenced on the 22nd August and completed on the 16th September. In making the repairs some 1,600 feet of lumber was used and the pier made available for shipments. The total amount expended by the close of the fiscal year ending 30th June, 1895, was \$394.

### OWEN SOUND.

Owen Sound is situated in the township of Sydenham, County of Grey, and at the mouth of the Sydenham River, it is the terminus of the Canadian Pacific Railway (Toronto, Grey and Bruce division) and of that company's line of steamers on the upper lakes, also of the branch of the Grand Trunk Railway (Georgian Bay and Lake Erie division).

At the last session of Parliament the sum of \$5,000 was voted to continue the dredging in the "new channel." Work was commenced on the 18th August and the appropriation expended by the 15th October. The dredge worked 586½ hours and removed 23,040 cubic yards of material. The expenditure for dredging and inspection was \$4,988.10

On the 19th October last a contract was entered into with Messrs. Porter and Canon, of Warton, for the bulk sum of \$18,638 for the construction of sheet pile—revetment—work in front of the esplanade, on the west side of the harbour, a distance of 1,550 feet, and for this purpose the sum of \$10,000 was voted at the last session of Parliament. The materials for this work were obtained during the winter months and delivered on the site of the works; active operations were commenced in May and on the 30th June last 55 per cent of the work was completed and it is expected that the whole of the revetment will be finished early in the coming month of July.

## PORT ALBERT.

Port Albert is situated at the mouth of Nine Mile Creek, on the east shore of Lake Huron, 11 miles north of Goderich, in the township of Ashfield, County of Huron.

At the last session of Parliament the sum of \$10,000 was revoted for the extension of the piers at this place and authority was given to do the work by day's labour and to extend the north pier 200 feet.

Preparations were at once made to obtain the necessary materials for the work; the two cribs were built and placed in positions through the ice, during the winter months, and in the spring the superstructure was placed upon the crib and the whole finished by the end of May.

The expenditure to the close of the fiscal year ending 30th June, 1895, was as follows:—

Constructing an extension to the north pier out into the lake, 200 feet long, 20 feet wide; materials, labour and inspection.....	\$5,689 93
Dredging for berths of cribs and in harbour.....	3,441 25
Total .....	\$9,131 18

## PORT ROWAN.

Port Rowan is situated on the north coast of Lake Erie, in the inner bay of Long Point, and is 21 miles from the town of Simcoe, in the county of Norfolk.

To strengthen the landing pier, the two outer cribs were filled with cribwork at a cost of \$1,143.16.

## RONDEAU.

Rondeau is situated at Pointe aux Pins on the north shore of Lake Erie about 140 miles west of Port Colborne. It is a harbour of refuge.

Authority was given to expend the sum of \$100, to repair that portion of the pier used as a landing for passengers and freight. This amount was expended by the 23rd November. A further sum of \$600 was authorized in order to make necessary repairs to the piers. The season being so far advanced it was found impossible to expend the money with any advantage before the spring of this year, when the materials were obtained and work pushed on as fast as possible.

The total amount expended to close of fiscal year ending 30th June, 1895, was \$600.

## SAULT STE. MARIE.

Sault Ste. Marie, the shire town of Algoma County, is situated at the head of the Ste. Mary's River, which connects Lakes Huron and Superior.

Authority having been given to expend out of the general vote "Harbours and Rivers, Ontario" a sum not exceeding \$300, for general repairs to the landing pier at this place.

Work was commenced on the 28th August and completed on the 29th September; thirty-two piles were driven to support floor beams, and 1,607 floor 3-inch plank was laid with other repairs.

The total expenditure to 30th June, 1895, for the fiscal year was \$297.

## SOUTHAMPTON.

Southampton is situated on the east side of Lake Huron, in the County of Bruce, and is the terminus of the Wellington, Grey and Bruce division of the Grand Trunk Railway.

## Department of Public Works.

At the last session of Parliament the sum of \$1,000 was appropriated for repairs to the breakwater and piers at this place.

Repairs were made last fall and this spring, and the sum of \$276.86 has been expended.

### THORNBURY.

Thornbury is on the west side of the Georgian Bay at the mouth of the Beaver River, in the County of Grey, East Riding, 13 miles west of Collingwood.

At the last session of Parliament the sum of \$2,500 was voted to complete the works of repair, and active operations were commenced in September—as soon as materials could be obtained—and the whole of the amount authorized was expended by the end of the fiscal year, and the landing pier is now in complete state to repair.

### TORONTO HARBOUR WORK AT EASTERN ENTRANCE.

The works at the eastern entrance which were begun in 1889, consist in building 1,650 feet of cribwork, to partially close the eastern gap from Fisherman's Island, up to the new eastern channel which is to be opened by the construction of two rows of cribwork, respectively 2,420 feet in length and 2,280 feet in length, 400 feet distant one from the other, and by dredging between these two rows of cribwork to a depth of 16 feet low water.

During the fiscal year 1894-95 four cribs, 30 feet in width, were sunk on west side of channel; and one, 40 feet wide, on east side, making a total of 58 cribs sunk to date.

1,750 lineal feet of superstructure was constructed, forming a total to date of 5,510 lineal feet. 78,748 ft. B.M. of plank were laid, and 17,155 cubic yards of stone placed in cribs and superstructure; and 107 cubic yards of large stone delivered for protecting the east pier.

14,970 cubic yards of sand were removed from the channel and crib sites, making a total of 667,493 cubic yards dredged.

## PROVINCE OF MANITOBA.

### HUAUSA WHARF.

Huauasa is situated on the west shore of Lake Winnipeg, forty miles north of the mouth of the Red River; sixty miles from the town of Selkirk, the head of navigation for lake boats, and eighty-two miles from the city of Winnipeg.

There is no village at Huauasa. The district between Huauasa and Gimli is very sparsely settled, as is the case between Huauasa and Icelandic River.

Icelandic River settlement is by land 7 miles north-west of Huauasa and 12 by water.

Gimli village is the most important settlement on the west shore of the lake with a population of 300. Gimli is 20 miles south of Huauasa. A light draught steamboat, the "Ida," makes regular trips between Gimli and Selkirk during the season of navigation. Boats drawing more than five feet do not run in to either Gimli or Huauasa.

To provide wharf accommodation for the district a contract was entered into, on the 5th March, 1895, with Mr. Peter McVeigh, of Ottawa, to construct a wharf 360 feet in length and 20 feet in width on top, consisting of 300 feet open faced cribwork, and a stone and earth embankment or approach 60 feet in length and 20 feet in width at the top.

The work of construction was commenced in June last, and was in progress at the close of the fiscal year.

## PROVINCE OF BRITISH COLUMBIA.

## COLUMBIA RIVER.

The Columbia River takes its rise in the Columbia lakes lying between the Rocky and Selkirk Mountains, a little north of the 50th parallel of north latitude and a little east of the 116th meridian. These lakes are divided from the Kootenay River, flowing south, by a gravel flat—commonly called Canal Flat— $1\frac{1}{2}$  miles in width, the level of the lakes being about 9 feet below that of the latter river. Flowing in a north-westerly direction, passing the Canadian Pacific Railway on the way, as far as the Canoe River, a tributary, a little north of the 52nd parallel, it doubles, and takes a southerly course repassing the railway at Revelstoke, and eventually passing the international boundary between the 117th and 118th meridians of west longitude.

*Above Golden.*—The dredge "Muskrat" continued operations on the Columbia River above Golden with the object of improving navigation at the canal entrance Upper Lake, Mud Lake Channel to Lake Windemere, and deepening the salmon beds below the outlet of Lake Windemere from the 1st July to the 30th October, 1894, at which latter date the plant was laid up and the crew discharged for the winter.

Owing to the late spring, and the prevailing coolness of the weather, the water rose very slowly, and it was not until the 3rd May, that the dredge could be successfully launched off the ways.

The object of this work is to obtain an average depth at lowest water in the spring of 24 inches in the shoalest places. To assist in accomplishing this, the flow at the outlet has been regulated by repairing the dam, built some years ago, and by filling in the channel at the outlet to a regular depth of 3 feet at low water. The dredge then moved slowly down stream taking off lumps, and filling in holes in the shoalest places, whereby the bottom, being made more regular, would more likely remain stable, the fall being distributed over a greater length of river. So far the work has answered the purpose; but it remains to be seen whether the improvement can be maintained permanently.

The following table gives the operations of the dredge in detail:—

Locality.	From.	To.	Cubic yards.	Remarks.
Deepening and widening canal entrance, Upper Lake.....	3rd July.....	11th Aug.....	4,272	Compact gravel and sand.
Moving.....	11th Aug.....	17th do.....		
Improving Mud Lake Channel.....	17th do.....	24th do.....	2,418	Mud.
Improving Channel.....				
Lake Windemere.....	25th Aug.....	29th Aug.....	890	do
Deepening Salmon Beds.....	30th do.....	31st Oct.....	5,675	Gravel and sand.
do do.....	10th May.....	30th June.....	3,532	do do
Total.....			16,787	

The expenditure being \$3,942.88, the cost approximately of moving the material was 23 cts. per cubic yard. Had there not been the unavoidable delay in getting to work in the spring, the cost per cubic yard would have been much less.

*Below Kootenay.*—Work was resumed at Kootenay Rapids last winter, and consisted in closing the gap between the cribs built in former years on the east or left bank of the river, for the purpose of facilitating the passage of boats, by preventing them from being drawn into the eddies, while ascending the river, and in prolonging the lower crib further down stream, and the expenditure amounted to \$2,347.57.



## Department of Public Works.

*At Revelstoke.*—Work was commenced at Revelstoke on the 18th of February, 1895, for the purpose of protecting the left bank of the Columbia River below the bridge at that place for a distance of about 1,600 feet.

The work consisted in building a continuous line of brush mattresses for the whole distance, extending from about low water to 3 feet above the highest flood water known, that of last year. The mattress was built in place about 2 feet in depth in cross layers of 8 inches each, all strongly interlaced together with number 6 galvanized iron wire, at 5 feet centres and strongly clamped together with bottom and top cedar timber and bolts. To give the massive brush additional solidarity, a large quantity of medium size boulders from the river bars were built in with the brush and a layer of broken rock spread over the exposed face.

The whole work was completed in a satisfactory manner by the 16th of April, at a cost \$7,010.84.

The work has stood the test of this year's high water in a satisfactory manner.

### FRASER RIVER.

The Fraser River rising at the base of the Rocky Mountains, a little south of the 53rd parallel of north latitude, near the Yellow Head Pass, flows in a north-westerly direction, along the base of the Rocky Mountains, to a few miles north of the 54th parallel, thence turning to the south it flows generally in that direction for about 400 miles, to a place called Hope, whence it turns westerly and enters the Gulf of Georgia about 8 miles north of the 49th parallel of north latitude—the international boundary line—and about 6 miles west of the 123rd meridian.

The length of the Fraser River, from its source to the gulf, cannot be less than 900 miles.

*Garry Bush.*—The work at Garry Bush, during the past fiscal year in connection with protection of the bank, consisted of driving piles through the mattresses at low water mark, cutting off, capping, and tying the piles to the bank. This was done for the purpose of preventing damage to the work by the pounding of heavy drift timber. Before, however this was completed, the mattresses were made good, wherever damaged, by patch work, and rock distributed over the exposed face between high and low water marks. The work covered by the expenditure extended from Steves' wharf to Garry Point a distance of 800 feet.

On June the 4th, a subsidence, about 50 feet wide, took place at Garry Point, between high and low water marks, and behind the work, caused by, it is thought, the scapage water, sluicing out a stream below high water, of fine material.

It was immediately made good with mattresses and stone. No other damage has occurred, the works appearing to be in good condition, permanent and successful in protecting the bank from erosion.

The expenditure amounted to \$2,999.91.

*Mouth of River.*—Before it was possible, on account of the extreme high water which prevailed last year, to continue the extension of the works beyond Garry Point in connection with the improvement of the channel at the mouth of the river, men were engaged in getting out rock and making other preparations for resuming work; and in completing the repairs to the Rock wharf necessitated by the damage done during the extreme high water:—

On the 27th July, the freshet having subsided to a favourable stage for work, the first mattress was placed in position outside Garry Point, and on the 19th of October following, the 35th was laid, completing the protection of the steep cut north bank, a work necessary for the stability of the channel, for a further distance outside Garry Point of 1,150 feet.

For the purpose of patching and making good unavoidable intervals between the mattresses or damaged work, separate mattresses of different sizes and shapes were, in addition to the above, constructed and placed in position.

The portion of the mattresses sunk the previous year outside Garry Point, exposed to damage by waves or drift timber, were protected by driving piles through

them at low water mark. These were then capped and tied to short piles driven in the bank, rock having first been laid along the exposed face of the mattresses.

When permitted by tides and the absence of the fishing boats, soundings were taken at the mouth of the river and over the sandheads for the purpose of ascertaining the extent of the changes effected by the unusually high water of last year. The soundings, extending from the lower end of Woodward's Slough at Western Island, to the outside of the sandheads at buoy No. 1, show that great changes have taken place in the position and extent of the bars in the channel, and that the erosion of the banks, especially of Westham Island, has been excessive: the immediate result of the extraordinary high water of last summer.

The north banks of Westham Island and on the island known as McNab's, immediately adjoining and to the outside of the former, have been most seriously washed away, while the bar opposite has been creeping down stream, forcing the current over against Westham Island. Opposite Garry Point there has been a very considerable movement of the bar outwards, with strong indications of subsidiary channels being cut to the southward, towards the old south channel.

In consequence of this widening of the river section at the mouth, there has been a serious shoaling of the bar from red buoy No. 6, westward abreast of Stevenston.

On the north side of the channel west of Garry Point there has been a continued shifting of the channel north. At the same time the bar further out has been forming or building up towards the south-west, so much as to necessitate the removal of the tide gauge from its position north of buoy No. 6 to its present position north of buoy No. 4.

Again on the south side, abreast of buoys Nos. 5, 6 and 7, the channel shifted to the southward. The subsidence of the south jetty was the result of this.

On the 30th November work was closed down for the winter.

On March 21st following the men were engaged and steps were taken with the view of constructing works to protect the north bank of Westham Island from further erosion, as well as that of McNab's Island. It was however evident that, owing to the extent of bank that it seemed necessary to protect before next high water and the small sum of money available for the purpose, it would be useless to endeavour to follow the same method as that adopted for the protection of the bank at Garry Point, as it was impossible to foresee at what particular point of Westham or McNab's Island, the erosion would be likely to be most severe. It was therefore decided to endeavour to meet the difficulty in the following manner, (1) by closing the slough below the rock wharf with mattresses and building a wing and (2) by building wings, varying in length from 100 to 200 feet from high water mark, all being protected both above and below by mattresses of smaller size. The position of these wings were chosen with the anticipation that if they did not succeed altogether in preventing erosion, they would assist in removing some of the projecting points of the bank, which rendered it impossible to economically protect the river bank, so that the works would present the least obstruction to the flow of the current.

Warm weather setting in unusually early this spring, about the end of April, the freshet water began to take effect on the river early in May, and continued rising until the end of that month, remaining at a standstill for the greater part of June. Although the water did not rise at Yale to within 16 feet of last year's level, the spring tides backed the water up at New Westminster to within one foot of last year's highest water, that is, the water reached a point 5 feet higher than the highest tide reaches when there is no freshet in the river. Towards the end of June there was a second rise reaching at Yale a point 4 feet 10 inches higher than the level reached in May. The first rise of the river passed without any damage occurring to the works on Westham Island, but the second occurring suddenly and at the time of the spring tides, the rush of water on the spring ebb tide, preceded by a short run out and that in turn preceded by a long run in, whereby the water was virtually backed up for eighteen hours, caused a certain amount of cutting at wings seven, nine and eleven. In the case of the two former the cutting was in the desired direction, that is the removal to a certain extent of the projecting points

## Department of Public Works.

along the bank, but in that of the latter it was not so. In no case, however, is the cutting so extensive that it cannot be remedied, if there are sufficient means for doing so. It is, however, out of the question, with the small appropriation of \$10,000 for the current year's work, to render the bank safe against next year's freshet.

The following is a detailed statement of the number of mattresses sunk outside Garry Point and along the north bank of Westham Island.

### *Outside Garry Point.*

- 35 mattresses, 100 x 25 feet x 2 feet 9 inches.
- 5½ mattresses, made up of 11 pieces used for filling in between and behind the large mattresses.
- 2 mattresses, 100 x 26 feet x 4 feet.
- 95 piles driven as guides for sinking mattresses.
- 1,300 tons of rock used in sinking mattresses.

### *Westham and McNab's Islands.*

13	mattresses	100	feet	by	26	feet	by	6	feet.
2	do	100	do	26	do	2	do		
1	do	80	do	26	do	6	do		
1	do	70	do	20	do	3	do		
2	do	75	do	12	do	1	do		
1	do	50	do	26	do	4	do		
7	do	50	do	26	do	2½	do		
6	do	50	do	26	do	1½	do		
1	do	50	do	26	do	3	do		
4	do	30	do	26	do	2½	do		
33	do	30	do	26	do	1½	do		

In addition to the above, 22,000 cubic feet of fascines were made for filling in interstices in the mattresses and making good damage.

The average cost of the mattresses, 100 feet by 25 feet by 2 feet 9 inches, built and sunk between the 1st July and 30th November, including all material and labour and a fair price for the use of the plant was \$281.17.

The expenditure during the year amounted to \$29,998.28.

### FRASER RIVER SURVEY.

In accordance with instructions, preparations were made for commencing the hydrographic survey of the Fraser River, which was to be carried out with the object of obtaining all information necessary for the consideration of the rectification of the river course, the protection of the banks, and the prevention of overflow.

Work was commenced at Katz Landing, about 2½ miles below Hope, a station on the Canadian Pacific Railway, 80 miles above New Westminster. After laying out and carefully measuring an initial base line, 1,300 feet long, which approximated the breadth of the river at that point, the engineer in charge proceeded to fix trigonometrical stations along either bank, above maximum flood level, as nearly as possible opposite to each other, so as to obtain well conditioned triangles. The trigonometrical stations were either cedar posts five feet long, and generally about eight inches square, set in the ground with the large end down so as to avoid heaving by frost, the post holes being filled in first with large stones and then with earth well rammed, or the stump of a solid cedar tree cut and blazed to the same dimensions as the post. These trigonometrical stations were numbered from zero onwards, those on the south or left bank having the even numbers, while those on the north or right bank carry the odd numbers. On the face of each post towards the river was scribed the letters T.S. On the next side of the post the number thereof. On the third side the letters P.W.D.C., and on the fourth side, where it was the intention to establish a bench mark, the letters B.M.

As the engineer in charge established the stations and read the angles, the assistant engineer followed, traversing the country between the stations by stadia measurements, and noting in his book the character of the soil and configuration of the banks and bars, the direction and approximate rate of currents and the vegetation and timber in the vicinity. Vertical angles were also taken to determine the height of the hills on either side of the valley. This traverse or stadia survey embraced all the sloughs or subsidiary channels that had any connection with the river.

On the conclusion of the work last spring, the survey had reached a place called Popcum, a distance by the river from the point of commencement of  $17\frac{1}{2}$  miles. This distance involved 23.8 miles of main traverse between the principal trigonometrical stations, 18 miles of subsidiary main traverse of and to sloughs, etc., and 98 miles of stadia traverse. Wherever an opportunity occurred, verification bases were laid down, three careful measurements of the base being with hubs in line, the necessary correction for temperature being applied in every place. The method of distributing the error found was similar to that employed in India by the Topographical Survey Department.

Upon the conclusion of the work to Popcum, levels were run between trigonometrical stations 91 and 9 on the north or right bank, and between stations 88 and 50 on the south or left bank. The total length of ground traversed being about 27 miles. The fall of the surface of the river was ascertained to be in that distance about 2.03 feet per mile.

A plan of the work performed has been plotted on the scale of 400 feet to the inch, but owing to the appropriation having become exhausted, it has not been completed.

The expenditure amounted to \$4,894.71.

#### KICKING HORSE RIVER.

The Kicking Horse River may be described as a mountain fed by the glaciers and snow fields of the western slope of the Rocky Mountains, between Field and Golden Stations, on the line of the Canadian Pacific Railway. At the latter place it joins the Columbia River.

The local government having expended a large sum, upwards of \$2,500, in protecting the banks of the Kicking Horse River at Golden, the sum of \$500, voted by the Parliament of Canada for this purpose on the condition that the local legislature provide a like sum, was paid over to the Lands and Works Department, after having received satisfactory evidence of the expenditure and by personal inspection, that the work has been done in a substantial and workmanlike manner.

The work consisted in protecting the banks on both sides above the town of Golden and at the town itself by cribwork and by mattresses, the latter being constructed in a manner similar to the works at Revelstoke.

#### KOOTENAY RIVER.

The Kootenay River takes its rise in the heart of the Rocky Mountains a little north of the 51st parallel,  $16\frac{1}{2}$  miles south-east of Leancoil, a station on the line of the Canadian Pacific Railway. It flows for some distance in a south-easterly direction, and then, changing to the south-west, it passes within a mile and a half of the head-waters of the Columbia River. At Canal Flat it again changes direction, and pursues generally a direction a little east of south to the international boundary line, which it crosses at Tobacco Plains about 6 miles, west to the 115th meridian. The Kootenay enters Canada again at Bedlington about 20 miles east of the 117th meridian. Thence flowing a northerly course it enlarges into the Kootenay Lake, 72 miles in length, 28 miles by river from the boundary line. The outlet of the lake is on the west side about 30 miles north of the inlet, whence it flows in a south-westerly direction, joining Columbia River about 21 miles all north of the boundary line.

## Department of Public Works.

It may be safely stated that throughout its entire course the Kootenay traverses a country rich in minerals of all kinds, but particularly so in gold and silver.

The work on this river consisted principally in clearing it of snags, drift timber, and overhanging trees, commonly called sweepers; and in cutting all trees that threatened to fall in the river, should the current erode the bank, for a distance of 17 miles below Canal Flat. In secondary importance was the attempt to improve Surprise Bar, 12 miles below the flat, by building a dam on the west or right bank for the purpose of training the water against the bar. The removal of spurs of rock which caused dangerous eddies, abreast of a rock bluff, on the east or left bank below Surprise Bar, was also undertaken.

The work of clearing the channel was successfully carried out and has been of benefit to navigation, but the dam at Surprise Bar has been only partially so, and unexpected ice shove at the time that the closure was being made, upsetting the crib, which it was found impossible to replace in time.

### SKEENA RIVER.

The Skeena River lies in the north-western section of the western portion of British Columbia. It derives its source from lakes and glaciers situated between the 56th and 57th parallels of north latitude and between the 126th and 128th degrees of west longitude. It flows generally in a south-westerly direction and empties into the waters of the Pacific Ocean by way of North Skeena, Telegraph, and Mallaca Passages, Chatham Sound, etc., at a point a little north of the 54th parallel of north latitude, and a few miles west of the 130th degree of west longitude, and about 650 miles, by the inner passage, north-west of Victoria. The principal post office and port on the Skeena is Port Essington, lying on the south shore of the estuary at the confluence of the Skeena and Oxtall Rivers, 13 miles east or inland of the entrance passages. It is navigable by light draught steamers, when the water is not too high, from May to the end of September, as far up as Hazelton, a Hudson's Bay Company post established on the south bank at a distance of about 173 miles from the mouth of the river. This post is the distributing point for the mining and grazing country lying to the north and west towards the Rocky Mountains and Peace River country, and to some distance to the south.

The appropriation of \$4,000 was expended in removing snags which interfered with the drifting salmon fishing nets in the tidal waters of the estuary during the fishing season, in the month of July, and in continuing the removal of rocks from the channel of the upper river, with the intention of improving navigation.

After the snagging plant, which had been in disuse for several years, and consequently required repairs, had been placed in working order, the portion of the appropriation, viz., \$1,000, set apart for this particular work was almost exhausted, but nevertheless many large and destructive snags were removed to the benefit of the fishermen. When this work closed the plant was laid up in good order ready for next season's work.

In September following the foreman proceeded up the river as far as Sepkew, 81 miles above Port Essington, and commenced the removal of a reef of rock jutting out from the north side of the channel and continued there until the work was interrupted by the fall freshet and flowing ice in November, when the men were laid off as it was impossible to continue the work under such conditions. The foreman, however, was retained for the purpose of burning charcoal and to act as watchman of the tools and houses which had been built for the protection of the men. Active work was resumed in February, a large quantity of snow and ice having first to be shovelled off the rock. On the 4th March, finding that the water was getting low and a good opportunity for sled travelling presenting itself, the foreman with his men proceeded up river, about 25 or 30 miles and removed a dangerous rock about 6 miles below Tomlinson's. Subsequently a return was made to Sepkew and work resumed at that point. The rock at Tomlinson's on account of the absence of seams was comparatively easy to remove, while that at Sepkew was so full of seams that powder had but little effect upon it.

The expenditure on this river, during the year ended 30th June, 1895, amounted to \$ 3,980.64.

### DREDGING OPERATIONS.

During the fiscal year 1894-95 dredging was done at the undermentioned places :

#### *Nova Scotia.*

Acadia Coal Co., Pictou.	Eastern Passage.	Salmon River.
Cheticamp.	Herring Cove.	Sambro.
D'Escousse.	Mabou.	Spry Bay.
Dwyer's Wharf.	Poulamond.	Yarmouth.

#### *New Brunswick.*

Fisher's and Chestnut Shoals.	Orcmocto Shoals.	Pointe du Chêne.
Moss Glen.		

#### *Prince Edward Island.*

Cardigan Bridge.	Grand River.
------------------	--------------

#### *Quebec.*

River St. Lawrence, Ship Channel between Montreal and Quebec.	Chicoutimi.	Nicolet.
Berthier (en haut).	Dorval.	River St. Pierre.
Charlemagne.	Isle Gros Bois.	St. Placide.
Chateauguay.	Louise Basin, Quebec.	
	Louiseville.	

#### *Ontario.*

Amherstburg.	Kaministiquia River.	Port Elgin.
Belleville.	Kincardine.	Port Hope.
Collingwood.	Kingsville.	Port Stanley.
Frenchman's Bay.	Midland.	Trenton.
Goderich.	Oakville.	Whitby.
Hamilton.	Penetanguishene.	

#### *Manitoba.*

Red River.

#### *British Columbia.*

Victoria Harbour.

### PROVINCE OF NOVA SCOTIA.

#### DREDGING AT ACADIA COAL COMPANY'S WHARF, PICTOU CO.

The Acadia Coal Company of Stellarton, a village in Pictou County, N.S., 10 miles N. E. of Halifax has its piers and shoots for shipping at Pictou Landing in the harbour of Pictou, where besides their large shipments they supply numerous steamers calling for bunker coal. The piers and railway track extend a long distance out from the harbour bank, directly across the current and with the flow of the tide in and out the harbour the silt settles around the wharfs.

Considerable dredging has been done here at various times.

During the past fiscal year from the 18th to 20th November, 1894, and the 9th to 11th May, 1895, the dredge "Canada" worked at the company's loading piers, deepening the approaches to 14 feet at outer and gradually decreasing to 10 feet low water at the inner end of pier, removing 810 cubic yards of clay, silt, &c., for which work the company paid the department the sum of \$250.

## Department of Public Works.

### DREDGING AT CHETICAMP.

Cheticamp is a settlement in Inverness County, on the Gulf of St. Lawrence, 58 miles north of Mabou, with a population of about 1,900, several stores, school buildings, church, telegraph and express offices, &c. The harbour between Cheticamp Island and the mainland is entered from the N. E. through a dredged channel 80 feet wide, having 14 feet at low water, between the shingle spit at Cape Gross on the north-east extremity of the island and Carveau Point. There is a depth of 21 feet within the harbour, but the sand bar before being dredged had but 2 feet over it at low water and the greater part of it dry.

There is good anchorage for the largest vessels inside and numbers of fishing and other vessels run here for a harbour of refuge in bad weather. There are several wharfs and a government pier in the harbour. A steamer runs between Cheticamp and Pictou, touching at intermediate points. A large fishing business is done and the export of cattle, produce, fish and oil is very considerable.

A large amount of dredging has been done by the department at this place, and during the fiscal year 1894-95 the dredge "Canada" was engaged between July 1st and 14th, 1894, and again from the 29th May to 19th June, 1895, in deepening and widening the channel at the outer entrance to 13 feet at L. W. S. T., the material removed amounting to 10,440 cubic yards of sand, &c.

### DREDGING AT D'ESCOUSSE.

D'Escousse, a settlement in Richmond County, C.B., on Isle Madame, in Lennox Passage, 7 miles from Arichat, contains several stores, hotel, telegraph, telephone and express offices and has a population of about 500. The harbour is small but secure and is formed by Bernard Island touching and bearing west. It is a half by a quarter mile in area with 11 to 18 feet of water. The entrance is a narrow channel with but 7 feet at low water on the bar. The fisheries are extensively prosecuted by small vessels, belonging generally to Jersey merchants residing at Arichat. The entrance to the harbour had been considerably improved by the department in the past, and this year the dredge "Canada" was engaged from the 23rd September to the 10th November in further deepening and straightening it, 3,240 cubic yards being removed, principally of clay, sand and gravel, leaving a depth of 13 feet. This was taken off the point of the island shoal, about 460 feet across, the sides being about 180 and 80 feet respectively.

### DREDGING AT DWYER'S WHARF.

This wharf is in the harbour of Pictou, one of the finest harbours on the southern shore of the Northumberland Strait. The town of Pictou has a population of about 3,500 and an extensive trade. The annual exports of coal are very large. The Prince Edward Island Steam Navigation Company makes Pictou a terminus for their steamers and it is a place of call for other lines.

The dredging done during 1894-95 in front of Dwyer's wharf was principally to enable the steamer "Campania," running between Montreal and Pictou, to get to and lie at this wharf, and consisted in making a channel or approach to the wharf and along its front, widening into a turning berth. The work was commenced by the dredge "Canada" on the 20th June and was in progress at the close of the fiscal year, when 1,530 cubic yards of mud had been removed, leaving a depth of 14 feet at low water springs.

### DREDGING AT EASTERN PASSAGE.

Eastern Passage, Halifax County, is the name given to the water channel lying between Lawlor's and MacNab's Islands on the one hand, and the main eastern shore of Halifax Harbour on the other. It is  $3\frac{1}{2}$  miles long from the northern end of MacNab's to the southern end of Lawlor's Island, and has an average width of about 2,000 feet, or  $\frac{2}{3}$  of a mile.

The settlement of the same name embracing a population of about 800 people, extends scatteringly along the mainland for the whole length of the passage, its centre and most important point, where there is a post office and a general store, being at the turn of the Cow Bay road, towards the southern end of the passage, and at a distance of 5 miles in a direct line south-east from the the city of Halifax. At this point is a small creek or cove formed by a bar of sand and shingle within which are the little fishing wharfs and fish houses, and where the inhabitants keep their boats.

For the purpose of deepening and improving this cove, which had been gradually filling up with sand and mud, the departmental dredge "George McKenzie" in November and December, 1894, worked eight days, dredging a channel 240 feet long, 50 feet wide, and 8 feet deep at L.W.O.S.T. The maximum depth of mud excavated is 8 feet, and the total quantity removed 2,070 cubic yards, scow measurement.

#### DREDGING AT HERRING COVE.

Herring Cove, Halifax County, is an important fishing village and harbour on the west side of the mouth of Halifax Harbour,  $5\frac{1}{2}$  miles south from the city. The population of the place is about 450 persons exclusively, dependent for a livelihood on fishing and the annual catch of various kinds of fish is from \$75,000 to \$100,000.

In 1874 the department expended the sum of \$2,400 in dredging a bar of sand and silt that had formed at the entrance to the cove, a little over 12,000 cubic yards of material being removed.

This bar having again accumulated during the past twenty years, the departmental dredge "George McKenzie" removed it and deepened the cove for the greater part of its length to enable a larger class of vessel to approach the numerous fishing wharfs and stages surrounding it.

The area excavated is approximately 1,100 feet long and 150 feet wide, the depth of water provided by the dredging is 12 feet at L.W.O.S.T., and the total quantity of material removed is 12,915 cubic yards (scow measurement), besides numerous large boulders.

#### DREDGING AT MABOU.

The Mabou River, Cape Breton Island, runs into the Gulf of St. Lawrence about 6 miles north-east from Port Hood.

From its outlet to the bridge, a distance of  $3\frac{1}{4}$  miles, the river resembles a mountain lake, being in one part three-quarters of a mile wide with 8 fathoms of water. Two small streams enter from the eastward. The harbour is sometimes dangerous to enter, owing to the tides frequently flowing at a rate of four miles an hour. Springs rise 4 feet, neaps 2 feet.

The entrance was formerly over a sand bar through a long and crooked channel which was closed and a shorter straight one opened and piers were built. The channel thus made requires frequent dredging to keep it clear. The locality is a well settled agricultural district, and coal and plaster are exported to a considerable extent. There is also a prosperous fishery and export trade, saw and grist-mills, hotels, stores, etc. Adjacent settlements on the river make the population about 2,000.

During the fiscal year 1894-95 the dredge "Canada" operated at this place from 17th July to 22nd September, 1894, and from 22nd to 27th May, 1895, deepening the channel between the breakwater and McFadden's wharf to 11 feet, removing 11,730 cubic yards of sand and gravel, old logs and part of the old breakwater which had been deposited on the channel.

#### DREDGING AT POULAMOND.

Poulamond, a settlement adjacent to D'Escousse, is in Richmond County, on the<sup>e</sup> end of Isle Madame, in Lennox Passage, the population being about 200.

Poulamond Bay is a secure and capacious harbour. It is divided, by islands into two parts, of which the eastern division leading into Poulamond Creek contains most



## Department of Public Works.

of the houses and affording the most roomy anchorage in 4 to 5 fathoms of water, with a mud bottom and is the most frequented. Springs tides rise 6 feet, neaps 4 feet.

At Poulamond the government lately built a wharf to facilitate the shipment of produce, fish, etc., and landing of supplies, coal, etc., and during the fiscal year 1894-95 the dredge "Canada" was employed in deepening the approach to the wharf and making a turning basin and berths for small vessels to be at the wharf.

She worked here and at D'Escousse alternately as conditions of tides and weather best suited, between 23rd September and 10th November, removing at Poulamond 10,080 cubic yards of clay and gravel and leaving a depth of 10 feet over an area of 125 feet wide in front of the wharf, widening out to 240 feet at a distance of 500 feet, and an area of 60 by 40 feet on each side of the wharf.

### DREDGING AT SALMON RIVER.

Salmon River, Halifax County, is a thrifty village of some three or four hundred people engaged in fishing, lobster-canning, and gold mining, situated at the mouth of the river of the same name that empties into Beaver Harbour at its north-east end. It is 65 miles in a direct line from Halifax Harbour, about 85 by high-road, and about half way between Halifax Harbour and Canso.

Up to 20 or 25 years ago the harbour, which though small is well sheltered, had a depth of three to four fathoms up to its extreme head, but since the establishment, about 15 years ago, of the crushing mills of the Dufferin Gold Mining Co., on the stream three miles inland, this depth has been gradually reduced by the deposition of the refuse crushings in the form of fine sand, which were thrown into the stream until there is now only three or four feet of water at L. W. O. S. T.

The trade of the place has in consequence suffered to no inconsiderable degree and even small vessels have difficulty in approaching at low tide the lower of the two private wharfs in the upper part of the harbour. Sailing packets engaged in the coasting trade make fortnightly calls and a steamer running between Halifax and Charlottetown, P.E.I., via intermediate coast ports, calls at the port once and sometimes twice each week.

To restore this harbour to its former usefulness, the departmental dredge "George McKenzie" removed during the months of June and July, 1894, 11,250 cubic yards (scow measurement) of sand and mud, giving a channel 50 feet wide approaching Whitman's wharf and turning berth 160 feet square abreast of it, with a depth of water of 13 feet at L. W. O. S. T.

### DREDGING AT SAMBRO.

Sambro, a post settlement in Halifax County, N.S., on the Atlantic coast, 20 miles west from Halifax, has a population of about 250, principally fishermen. It contains two stores, express office, etc., and is situated on Sambro harbour which lies at the head of the bay formed between Pennant Point, west, and Cape Sambro, east. Heavy seas during south-westerly winds are broken by the ledges outside, but the shelter is imperfect and dangers are numerous off and in the harbour.

During the fiscal year the dredge "George McKenzie" first made a channel from deep water up to Hart's wharf, 300 feet long, 60 feet wide, to 80 feet at wharf, then along in front of the fish stages 400 feet by 40 feet wide. The work was over a mud covered ledge rock, the depths dredged varying from 7 to 12 feet. It then removed shoals off factory wharf and Gray's wharf, one 100 feet by 40 feet another 160 feet by 40 feet down to rock ledge giving a depth from 9 to 11 feet low water. Some boulders were removed also. The materials removed amount to 4,815 cubic yards, principally mud, between the 1st and 22nd of June.

### DREDGING AT SPRY BAY.

Spry Bay, a seaport town in Halifax County, is on the Atlantic coast, 66 miles N.E. of Halifax, and on Spry Harbour, which is sufficiently commodious to accommodate a large number of vessels in 7 or 8 fathoms, with a mud bottom and secure from all winds.

Spring tides rise  $6\frac{1}{2}$  feet, neaps  $4\frac{1}{2}$ .

The town has four stores, an hotel, carding mill, telegraph and express offices, and a population of about 375.

The dredging done at this place was by the dredge "George McKenzie," to enable the steamer calling here and the larger class of schooners to make the wharf at all stages of tide, and consisted in making a channel 1,000 feet long by 75 feet wide to a minimum depth of 13 feet at low water spring tides. An average depth of two feet at low water was taken off, and a turning basin 150 feet square was dredged.

The quantity of material removed was 10,665 cubic yards of mud, etc.

#### DREDGING AT YARMOUTH.

The seaport town of Yarmouth is in a small bay, 205 miles S.W. of Halifax and at the western extremity of the province of Nova Scotia. It is of considerable extent, has a population of about 6,000, many fine buildings and a large trade in the fisheries.

There are various manufactures, a marine railway for hauling vessels of about 600 tons, fine stores, hotels, etc. The Dominion Atlantic Railway connects with Halifax and a line of steamers runs from here to Boston, Mass.

The new channel leading to the anchorage off the town, is narrow and circuitous but well marked with buoys. It has had the attention of the government with regard to dredging since 1875, and surveys and plans have been carefully made and the directions of the department closely followed. The result has been a great improvement in straightening, widening and deepening to 16 feet the channel at low water spring tides, and a large amount of money has been expended.

At the close of the fiscal year 1893-94 the dredge "St. Lawrence" was operating here and continued from the 1st July to 12th October and 2nd to 17th November, 1894, when orders were given to place her in winter quarters at St. John.

During the year a further quantity of 24,843 cubic yards of clay, etc., was removed, further improving the channel. The channel dredged from south side of Killam's wharf was 66 feet wide, 16 feet deep at low water springs, and thence to the south side of Clement's wharf, 70 feet wide and from the last named point 100 feet, widening to the north side of steamboat wharf and thence widening from 200 feet to 294 feet past the south side of steamboat wharf and from there narrowing to 100 feet at the Lobster rocks and continuing outward at that width, to near the outer turn, where it widens to 270 feet. The whole length of the work dredged is 2,970 feet.

#### PROVINCE OF NEW BRUNSWICK

##### DREDGING AT FISHER'S AND CHESTNUT SHOALS NEAR FREDERICTON.

The St. John River is one of the most important and notable in America. It is a magnificent stream flowing through the province and into the Bay of Fundy. It has an immense commercial traffic, especially as a carrier of lumber and timber, and waters some of the most fertile and valuable districts. At its mouth is the city of St. John, the commercial metropolis, and about 86 miles up the river is Fredericton, the capital of the province. All along its banks, settlements and villages of considerable importance as to points of shipment are found, adding also to the beauty of the river scenery. The department has had surveys and plans made of different parts of the river, with a view to the improvement of the depth, or the removal of obstructions where needed, and dredging at the most important of these localities has been done in the past.

During the fiscal year 1894-95 the dredge "New Dominion" was at work from the 1st to the 27th July at the Fisher and Chestnut shoals near Fredericton, York County, which were removed to a depth of 11 feet at low water (summer level) where formerly 9 feet were found, 8,200 cubic yards of sand and gravel being removed. The area of Fisher's shoal was 245 feet by 180 feet and Chestnut shoal 200 by 130 feet

## Department of Public Works.

### DREDGING AT MOSS GLEN.

Moss Glen is a picturesque hamlet on the Konnebecasis River, King's County, N.B., about 12 miles distant from St. John City.

There is a population of about 100, a general store and post office, and a factory, the principal industry of the place, which cuts up 12,000 to 15,000 superficial feet of lumber each day, into small wares, matches, barrel staves, laths, shingles, crates, boards, clap boards, etc., employing fifty to sixty hands. Berry and small fruit culture is largely carried on, and the steamers running between St. John and Hampton call here.

The dredging done by the "New Dominion" was from the channel to and along the east side of the wharf, on a length of 403 feet by 60 feet wide and at the south front of wharf, 264 feet long, 45 feet wide to a depth ranging from 6 to 10 feet, making berths for vessels and lumber and passage out to the channel. The material removed was 10,200 cubic yards of sand, gravel and mud, which engaged the dredge from 21st May to 18th June, 1895.

### DREDGING AT THE OROMOCTO SHOALS.

The Oromocto River empties into the River St. John, 11 miles below Fredericton at the village of Oromocto, in Sunbury County, a place of about 400 inhabitants, containing stores, hotels, telephone office, etc. It has a public pier, steamers running between St. John and Fredericton, and considerable agricultural produce is shipped from this point.

The Oromocto shoals, in the immediate vicinity, lie between Thatch and Oromocto Islands, with at times but 8 feet of water on them, and are an obstruction to the navigation of the River St. John. They require dredging on an average every three years and in that way dredging has been done, making one narrow cut through the shoals, from below Belmont to the junction of the Oromocto, to a depth of about 15 feet.

During the fiscal year 1894-95 the dredge "New Dominion" operated from 28th July to 7th November, 1894, improving the shoals by one cut 45 feet wide to a depth of 11 feet and from 19th to 30th June, 1895, at the junction of the Rivers St. John and Oromocto, removing the tail of Thatch Island over an area of 325 feet long, 100 to 150 wide, to a depth of 9 feet low water summer level. This permits the river steamers leaving the Oromocto wharf to enter the main channel direct and proceed on their way to Fredericton without being required, as before, to go back and around the tail of this island.

The material removed was 30,725 cubic yards of sand.

### DREDGING AT POINTE DU CHÊNE.

Pointe du Chêne is on the Northumberland Strait and is the north-east terminus of the Shediac branch of the Intercolonial Railway and two miles from Shediac. It has long piers with range lights for shipping, also range lights on Shediac Island. The fine steamers of the Prince Edward Island Steam Navigation Company make a round trip daily between this port and Summerside, P.E.I., while navigation is open, and connect with the trains of the Intercolonial Railway and Prince Edward Island Railway. There are several stores, two or three hotels, summer resorts, telegraph and express offices and a population of about 200.

The surrounding country is fertile and well settled.

The improvement of the channel from Chêne spit into and along the piers by dredging has occupied the attention of the department for several years.

During the fiscal year 1894-95 the dredge "St. Lawrence" operated from 22nd May to 30th June, 1895, in improving the shoals at Chêne spit and the narrows, while the berths at the piers were improved, 10,590 cubic yards of clay, oyster shells, mud, old piles and boulders were removed, and a depth of 15 feet left at L. W. spring tides.

## PROVINCE OF PRINCE EDWARD ISLAND.

## DREDGING AT CARDIGAN BRIDGE.

Cardigan is a post village in King's County, on the Cardigan River, which is navigable to that place for large vessels. It is also a station of the Prince Edward Island Railway, 40 miles east from Charlottetown, and 6 miles west from Georgetown, and is a shipping place for the products of a large extent of the surrounding country. There are 6 stores, 2 hotels, saw and grist-mills, a ship yard, telegraph and express offices and a population of about 700, and there is at present a vessel of about 700 tons, under construction in the ship yard.

The dredging done at this point during the fiscal year consisted in deepening around the government wharf or pier to a depth of 12 to 13 feet at low water, and the channel from the pier to Cardigan Bridge to 12 feet, thus much improving the shipping facilities of the place.

A total of 23,625 cubic yards, principally mud and sand, were removed by the dredge "Prince Edward" from the 20th October to 23rd November, 1894, and from 22nd May to 30th June, 1895, at which date the work was still in progress.

## DREDGING AT GRAND RIVER.

The entrance of Grand or Boughton River, King's County, is 5 miles N.N.E. of Boughton Point and Cardigan Bay, on the south-easterly coast of Prince Edward Island. There is a dangerous sand bar near, over which is a narrow channel with barely 6 feet at low water to the entrance, where it passes around a long sand bar, which stretches from the south shore to within  $1\frac{1}{2}$  cables of Bank's Point at which there is a wharf and ferry to Annandale, almost directly opposite. The country surrounding is fertile and well cultivated, and large quantities of produce are shipped. The principal shipping points on this river are Annandale, at the entrance about 10 miles from Georgetown, Chapel Point pier and the pier on the opposite side of the river and Dundas at the head of navigation.

Considerable dredging has been done by the department here, and this year a further amount was done by the dredge "Prince Edward" from 1st July to 19th October, which removed part of the middle ground in front of the pier at Annandale to 12 feet at low water S.T., also in front the pier and wharfs at Dundas with a basin to swing vessels into the same depth, removing 24,435 cubic yards, principally sand, clay and mud.

## Department of Public Works.

### CLASSIFICATION of Disbursements of the Dredge "St. Lawrence" during the Year ending 30th June, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Wages . . . . .	508	80	508	33	508	33	508	33	508	33	481	35	458	33	458	33	458	33	453	05	476	07	508	33	5,835	56
Coal . . . . .	137	91	118	95	162	36	236	67	112	42	140	71	134	14	132	05	132	05	163	68	407	47	189	10	1,181	07
Provisions . . . . .	178	18	162	78	176	33	249	38	96	02	140	71	134	14	132	05	132	05	138	34	407	47	34	31	2,009	04
Stores . . . . .			33	45	41	81	30	05	2	48					35	07	114	74			58	28	25	15	108	03
Equipment . . . . .			39	38	148	71															17	00			361	11
Water . . . . .					24	12	8	15	10	08																
Repairs . . . . .			25	45			1,511	87			267	17	777	68			306	93	278	40	151	03			3,318	53
Pilotage . . . . .			52	00	50	00	54	00	82	00											100	00	79	00	471	00
Towage . . . . .									5	00															5	00
Wharfage . . . . .																										
Contingencies . . . . .			5	00					10	10			10	00			00	75			16	55	5	00	47	40
<b>Totals . . . . .</b>	<b>902</b>	<b>34</b>	<b>921</b>	<b>89</b>	<b>1,111</b>	<b>31</b>	<b>2,708</b>	<b>45</b>	<b>826</b>	<b>43</b>	<b>889</b>	<b>23</b>	<b>1,380</b>	<b>15</b>	<b>1,047</b>	<b>87</b>	<b>1,033</b>	<b>47</b>	<b>1,226</b>	<b>40</b>	<b>840</b>	<b>89</b>	<b>840</b>	<b>89</b>	<b>13,456</b>	<b>09</b>
Working expenses . . . . .	876	89	921	89	1,111	31	1,196	58	826	43	622	06	602	47	591	13	755	07	1,075	37	840	89	840	89	9,420	09
Repairs, ordinary . . . . .	25	45	Nil.		Nil.		866	70	Nil.		128	20	Nil.		Nil.		138	97	Nil.		Nil.		Nil.		1,020	35
Dredge V. repairs . . . . .	Nil.		Nil.		Nil.		645	17	Nil.		138	97	777	68	456	74	278	40	151	03	151	03	Nil.		3,015	65
<b>Totals . . . . .</b>	<b>902</b>	<b>34</b>	<b>921</b>	<b>89</b>	<b>1,111</b>	<b>31</b>	<b>2,708</b>	<b>45</b>	<b>826</b>	<b>43</b>	<b>889</b>	<b>23</b>	<b>1,380</b>	<b>15</b>	<b>1,047</b>	<b>87</b>	<b>1,033</b>	<b>47</b>	<b>1,226</b>	<b>40</b>	<b>840</b>	<b>89</b>	<b>840</b>	<b>89</b>	<b>13,456</b>	<b>09</b>

CLASSIFICATION of Disbursements of the Dredge "Canada" during the Year ending 30th June, 1895.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....	422 83	420 33	420 33	420 33	420 33	295 33	295 33	295 33	295 33	317 08	391 50	420 30	4,414 38
Coal.....	93 78	143 73	166 91	166 91	14 88	61 42	38 42	40 83	43 75	35 85	165 70	69 00	653 52
Provisions.....	86 73	88 99	92 03	109 79	69 73	.....	.....	.....	.....	.....	39 95	.....	767 49
Stores.....	10 60	.....	.....	.....	.....	.....	.....	.....	.....	.....	33 35	.....	43 35
Equipments.....	.....	255 70	.....	.....	85 40	.....	.....	46 90	.....	.....	12 00	.....	400 00
Water.....	5 90	.....	.....	16 80	.....	.....	.....	.....	.....	.....	.....	.....	21 80
Repairs.....	.....	.....	69 09	30 31	.....	86 37	.....	429 43	.....	1,455 22	45 94	26 93	2,143 29
Pilotage.....	57 50	57 50	70 00	67 50	31 85	7 50	.....	.....	.....	.....	25 00	60 00	376 85
Towage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wharfage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies.....	18 46	.....	6 25	.....	.....	7 48	.....	.....	.....	19 65	8 85	.....	60 69
Totals.....	675 84	984 73	657 70	811 64	621 69	458 10	333 75	812 49	339 08	1,827 80	782 29	576 26	8,881 37
Working expenses.....	675 84	984 73	588 61	781 33	536 29	371 73	Nil	336 16	339 08	350 83	736 35	549 33	6,250 28
Repairs, ordinary.....	Nil.	Nil.	69 09	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	4 00	Nil.	73 09
Dredge V, repairs and wintering.....	Nil.	Nil.	Nil.	30 31	85 40	86 37	333 75	476 33	Nil.	1,476 97	41 94	26 93	2,558 00
Totals.....	675 84	984 73	657 70	811 64	621 69	458 10	333 75	812 49	339 08	1,827 80	782 29	576 26	8,881 37

Department of Public Works.

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "NEW DOMINION" DURING THE YEAR ENDING 30TH JUNE, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	494 50		497 75		490 16		497 75		448 02		155 00		427 75		171 00		423 86		711 56		423 86		711 56		491 25		4,963 60
Coal.....					186 30												168 75		8 96		168 75		8 96				364 01
Provisions.....							2 27		4 27										39 37				39 37		40 38		86 29
Stores.....																											2 82
Equipment.....				2 82																							17 50
Water.....											54 42		7 80		57 07		132 24		219 49		132 24		219 49		114 44		612 46
Repairs.....																											
Flotage.....					375 00		405 00		240 00																		2,440 50
Towage.....	382 50		405 00		50 00																						50 00
Wharfage.....											7 11																9 76
Contingencies.....																											
Totals.....	877 00		905 57		1,101 46		905 02		692 29		216 53		435 55		228 07		724 85		1,165 88		724 85		1,165 88		1,112 72		8,546 94
Working expenses.....	877 00		905 57		1,101 46		905 02		692 29		162 11		Nil.		150 00		168 75		655 85		168 75		655 85		998 28		6,771 33
Repairs, ordinary.....	Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		26 45		Nil.		26 45		36 37		62 82
Dredge V. repairs and wintering.....	Nil.		Nil.		Nil.		Nil.		Nil.		54 42		435 55		78 07		556 10		483 58		556 10		483 58		78 07		1,712 79
Totals.....	877 00		905 57		1,101 46		905 02		692 29		216 53		435 55		228 07		724 85		1,165 88		724 85		1,165 88		1,112 72		8,546 94

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "PRINCE EDWARD" DURING THE YEAR ENDING 30th JUNE, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	494 50		497 75		491 25		497 75		491 32		205 71		157 50		150 00		493 87		469 26		508 35		4 612 26				
Coal.....	4 69		34 08		113 85		34 08		100 63						18 13						97 48		368 86				
Provisions.....											4 20				27 01								56 18				
Stores.....					7 49		17 48																				
Equipment.....					8 00																						
Water.....	43 00		44 50		37 50		44 50		39 00						12 25		108 98		12 00		45 00		69 30				
Repairs.....	72 40		17 60		17 60				176 74										158 42				271 75				
Pilotage.....											30 72												30 72				
Towage.....	625 00		1,420 00				1,420 00				475 00												3,579 74				
Wharfage.....													8 86										11 26				
Contingencies.....											2 40																
Totals.....	1,239 59		2,013 81		667 69		2,013 81		807 69		827 01		166 36		207 39		626 06		639 68		1,050 83		9,617 10				
Working expenses.....	1,167 19		2,013 81		650 09		2,013 81		640 45		718 03		Nil.		207 39		165 00		396 40		1,050 83		8,419 48				
Repairs, ordinary.....	Nil.		Nil.		17 60		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		17 60				
Dredge & repairs and wintering.....	72 40		Nil.		Nil.		Nil.		167 24		108 98		166 36		Nil.		Nil.		243 28		Nil.		1,180 02				
Totals.....	1,239 59		2,013 81		667 69		2,013 81		807 69		827 01		166 36		207 39		626 06		639 68		1,050 83		9,617 10				



## Department of Public Works.

CLASSIFICATION OF Disbursements of the Dredge "George McKenzie" during the Year ending 30th June, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Wages.....	494 50		515 75		580 25		573 25		494 50		273 75		157 50		150 00		155 00		254 14		248 80		491 25		4,398 69	
Coal.....	227 70		44 00		259 44				158 13				147 91												837 18	
Provisions.....			32 40		11 05		7 50		10 00																60 95	
Equipment.....											33 60										12 00				45 60	
Water.....	62 50		74 95		64 50		37 50		17 50		22 40										10 40		47 50		337 25	
Repairs.....					25 00								34 42		42 93						678 55		15 92		1,102 76	
Pilotage.....	625 00		833 40		632 35		787 50		300 00		408 95										75 00		625 00		4,287 20	
Towage.....																									151 93	
Wharfage.....																									58 00	
Contingencies.....	0 91		3 84				6 19		5 69				7 00		2 62		18 44		101 93		13 31		50 00			
Totals.....	1,410 61		1,504 34		1,582 59		1,411 94		985 82		738 70		346 83		195 55		173 44		662 01		1,038 06		1,229 67		11,279 56	
Working expenses.....	1,410 61		1,504 34		1,557 59		1,411 94		985 82		738 70		147 91		152 62		173 44		176 04		359 51		1,213 75		9,832 27	
Repairs, ordinary.....	Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		15 92		15 92	
Dredge repairs and and wintering.....	Nil.		Nil.		25 00		Nil.		Nil.		Nil.		198 92		42 93		Nil.		485 97		678 55		Nil.		1,431 37	
Totals.....	1,410 61		1,504 34		1,582 59		1,411 94		985 82		738 70		346 83		195 55		173 44		662 01		1,038 06		1,229 67		11,279 56	
																									+100 00	
																									11,379 56	

\* Chequed at Ottawa on account T. Robley.

CLASSIFICATION and Quantities of Material removed by the following Dredges during the Year ending 30th June, 1895.

"ST. LAWRENCE."

Description of Material Dredged.	July	August	September	October	November	December	January	February	March	April	May	June	Grand Totals.
	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.
Hard-pan	45	130	40	10	30							265	520
Boulders & old timber													
Gravel	6,126	7,788	6,475	2,100	2,100							2,850	2,850
Clay													
Clay and stone													
Sand—ordinary													
Sand—very fine													
Mud and shells													
Totals	6,170	7,918	6,515	2,110	2,130							10,530	35,433

"CANADA."

Hard-pan	900												900
Logs													
Gravel and rocks	540	1,880		1,200								800	4,420
Clay	900	1,000		1,410	270						540		4,120
Clay and gravel				6,200	1,800								8,000
Sand—ordinary				1,000							1,350		2,710
Sand and gravel	3,940	3,810										360	8,000
Mud and stone			1,710									4,410	14,160
Totals	6,840	5,250	4,590	9,810	2,070						1,890	7,380	37,830



DETAILS of Dredging in the Maritime Provinces

Dredge.	Locality.	County.	New Brunswick.		
			Quantity.	Cost of each Work.	Total Cost.
			C. yds.	\$ cts.	\$ cts.
"New Dominion"	Fisher and Chestnut Shoals, St. John River.	York	8,200	1,547 12	
	Oromocto	Sunbury	30,725	5,796 99	
	Moss Glen	King's	10,200	1,924 47	9,268 58
"Canada"	Cheticamp	Inverness			
	Mabou	do			
	D'Escousse	Richmond			
	Poulamond	do			
	Acadia Coal Co.'s wharf. Dwyer's wharf	Pictou do			
"Prince Edward"	Grand River	King's			
	Cardigan	do			
"St. Lawrence"	Yarmouth	Yarmouth			
	Pointe du Chêne	Westmoreland	10,590	4,361 53	4,361 53
"George McKenzie"	Salmon River	Halifax			
	Herring Cove	do			
	Spry Bay	do			
	Eastern Passage	do			
	Sambro	do			
			59,715	13,630 11	13,630 11

Dredge.	New Brunswick.		Nova Scotia.	
	Quantity.	Cost.	Quantity.	Cost.
	C. yds.	\$ cts.	C. yds.	\$ cts.
"New Dominion"	49,125	9,268 58		
"Canada"			37,830	9,630 65
"Prince Edward"				
"St. Lawrence"	10,590	4,361 53	24,843	10,231 69
"Geo. McKenzie"			42,790	12,340 36
	59,715	13,630 11	105,463	32,202 70

## Department of Public Works.

for the Year ending 30th June, 1895.

Nova Scotia.			Prince Edward Island.			Quantity by each Dredge.	Total Expenditure.
Quantity.	Cost of each Work.	Total Cost.	Quantity.	Cost of each Work.	Total Cost.		
C. yds.	\$ cts.	\$ cts.	C. yds.	\$ cts.	\$ cts.	C. yds.	\$ cts.
						49,125	9,268 58
10,440	2,657 79						
11,730	2,986 20						
3,240	824 82						
10,080	2,566 14						
810	206 20						
1,530	389 50	9,630 65				37,830	9,630 65
			24,435	5,302 34			
			23,625	5,126 56	10,428 90	48,060	10,428 90
24,843	10,231 69	10,231 69					
						35,433	14,593 22
11,250	3,244 43						
13,990	4,034 63						
10,665	3,075 72						
2,070	596 97						
4,815	1,388 61	12,340 36				42,790	12,340 36
105,463	32,202 70	32,202 70	48,060	10,428 90	10,428 90	213,238	56,261 71

Prince Edward Island.		Total Quantity.	Expenditure Dredging.	Superintend- ence.	Total Expenditure.	Cost per C. Yard.
Quantity.	Cost.					
C. yds.	\$ cts.	C. yds.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
		49,125	8,546 94	721 64	9,268 58	0 13 867
		37,830	8,881 37	749 28	9,630 65	0 25 458
48,060	10,428 90	48,060	9,617 10	811 80	10,428 90	0 21 699
		35,433	13,456 09	1,137 13	14,593 22	0 41 195
		42,790	11,379 56	960 80	12,340 36	0 28 839
48,060	10,428 90	213,238	51,881 06	4,380 65	56,261 71	0 26 384

EXPENDITURE for Dredging in Nova Scotia for the Twenty-three Years ended 30th June, 1895.

County.	Locality.	Total for the Twenty-two Years ended 30th June, 1894.		For the Year 1894-5.		Total Quantity.	Total Cost.	Cost for each County
		Quantity.	Cost.	Quantity.	Cost.			
Antigonish.	Antigonish.	22,025	3,649 15			22,025	3,649 15	
	Harbour au Bouche	10,568	2,498 48			10,568	2,498 48	
	Tracadie.	12,245	5,530 29			12,245	5,530 29	
	McNair's Cove.	11,265	10,035 68			11,265	10,035 68	
	Bayfield.	12,871	9,505 79			12,871	9,505 79	
Annapolis.	Arisaig.	3,540	3,853 30			3,540	3,853 30	35,072 69
	Annapolis.	2,825	1,635 68			2,825	1,635 68	1,635 68
Cape Breton.	Lingan.	22,267	9,275 56			22,267	9,275 56	
	Sydney.	54,600	17,781 54			54,600	17,781 54	
	Little Glace Bay	46,450	16,936 02			46,450	16,936 02	
	Port Caledonia.	17,413	8,242 21			17,413	8,242 21	
	Benacadie Pond	20,860	5,993 90			20,860	5,993 90	
	Christmas Island	19,045	3,364 98			19,045	3,364 98	
	Cow Bay.	3,255	1,892 32			3,255	1,892 32	
	Main à Dieu	4,680	2,720 76			4,680	2,720 76	66,207 29
	Tatamagouche.	65,480	20,373 07			65,480	20,373 07	20,373 07
	Cumberland	Parrsboro'	42,595	12,804 68			42,595	12,804 68
Wallace		60,835	14,573 49			60,835	14,573 49	27,378 17
Digby.	Digby.	12,585	5,056 29			12,585	5,056 29	
	Weymouth.	88	28 62			88	28 62	
	Guysboro'	5,490	1,413 53			5,490	1,413 53	5,084 91
	Larry's River.	26,230	6,546 70			26,230	6,546 70	
	Port Mulgrave	3,532	1,749 78			3,532	1,749 78	
Halifax.	Sherbrooke.	1,260	496 49			1,260	496 49	10,206 50
	Chezzetcook.	3,920	2,593 71			3,920	2,593 71	
Halifax.	Halifax Ferry	6,177	2,063 38			6,177	2,063 38	
	Herring Cove.	12,111	8,015 06	13,980	4,034 63	26,101	12,049 68	
	Ketch Harbour.	2,989	985 59			2,989	985 59	
	Richmond Wharf.	792	182 53			792	182 53	



EXPENDITURE for Dredging in New Brunswick for the Twenty-three Years ended 30th June, 1895.

County.	Locality.	Total for the Twenty-two years ended 30th June, 1894.		For the Year 1894-95.		Total Quantity.	Total Cost.	Cost for each County
		Quantity.	Cost.	Quantity.	Cost.			
		c. yds.	\$ cts.	c. yds.	\$ cts.			
Gloucester.	Bathurst.	98,637	29,095 79			98,637	29,095 79	29,095 79
	Richibucto.	101,048	34,940 07			101,048	34,940 07	
	Cocagne.	27,180	9,601 45			27,180	9,601 45	
	Bucouche.	13,005	4,934 24			13,005	4,934 24	
	do Priest's Point.	3,510	1,110 70			3,510	1,110 70	
Northumberland	do Chapel Point.	4,140	1,310 07			4,140	1,310 07	
	do Robertson's Wharf.	45	14 23			45	14 23	51,910 76
Queen's.	Horse Shoe, Miramichi.	197,692	53,185 83			197,692	53,185 83	
	Outer Bar.	27,125	7,495 51			27,125	7,495 51	
	Grand Dune.	37,975	10,121 67			37,975	10,121 67	
	Gordon Flats.	22,425	4,403 95			22,425	4,403 95	75,206 96
	Grand Lake.	93,555	16,372 96			93,555	16,372 96	
Restigouche	do McMann's Cove.	20,440	4,522 82			20,440	4,522 82	
	Jemseg.	61,305	12,117 74			61,305	12,117 74	
	Wassatenook.	48,975	6,340 83			48,975	6,340 83	
	Gr. mross Mid-ground.	12,040	3,274 99			12,040	3,274 99	
	Gagetown Creek.	6,965	1,894 52			6,965	1,894 52	44,523 86
St. John.	Dalhousie.	22,301	6,543 08			22,301	6,543 08	
	Traverse.	29,400	9,008 64			29,400	9,008 64	15,551 72
St. John.	I. C. R. Terminus.	139,810	37,130 01			139,810	37,130 01	
	Navy Is and.	25,294	9,296 79			25,294	9,296 79	
	Marble Cove.	29,925	4,374 40			29,925	4,374 40	
	Murray's Mills.	23,880	3,441 65			23,880	3,441 65	
	Indiantown Wharf.	1,615	192 83			1,615	192 83	
	Long Wharf.	7,137	2,680 24			7,137	2,680 24	
	Adam's Wharf.	7,513	3,247 29			7,513	3,247 29	
	Miller & Woodman's.	9,275	1,090 42			9,275	1,090 42	
	Hayford, Stetson & Co.	8,015	942 29			8,015	942 29	
	International Wharf.	450	52 90			450	52 90	63,445 63
Anchor Line Wharf.	4,695	966 81			4,695	966 81		



Department of Public Works.

Sunbury	253,848	49,025 53	49,025 53	30,725	5,746 99	5,746 99	284,573	54,822 52	54,822 52
Westmoreland	69,700	21,125 92	21,125 92	10,590	4,361 53	4,361 53	80,290	25,487 45	25,487 45
York	39,395	7,699 15	7,699 15				39,395	7,699 15	
	15,570	6,827 36	6,827 36				15,570	6,827 26	
	30,395	4,379 52	4,379 52				30,395	4,379 52	
	1,600	435 22	435 22				1,600	435 22	
Fisher's and Chestnut Shoals		19,341 25	19,341 25	8,200	1,547 12	1,547 12	8,200	1,547 12	20,888 37
Belleisle Point	60,170	8,156 76	8,156 76				60,170	8,156 76	
Kennebecasis River	116,270	20,081 83	20,081 83	10,200	1,924 47	1,924 47	116,217	20,081 83	30,163 06
Moss Glen							10,200	1,924 47	
	1,672,320	397,466 01	397,466 01	59,715	13,630 11	13,630 11	1,732,035	411,096 12	411,096 12

EXPENDITURE for Dredging in Prince Edward Island for the Twenty-Three Years ended 30th June, 1895.

County.	Locality.	Total for the Twenty-two Years ended 30th June, 1894.				For the Year 1894-95.				Total Quantity.	Total Cost.	Cost for each County.
		Quantity.		Cost.		Quantity.		Cost.				
		c. yds.	\$ cts.	\$ cts.	% cts.	c. yds.	\$ cts.	\$ cts.	% cts.			
King's	Grand River	51,735	10,001 70			24,435	5,302 34			76,170	15,304 04	
	Montague River	132,480	22,819 11							22,819 11	22,819 11	
	Murray Harbour South	99,453	17,638 73							99,453	17,638 73	
	Sturgeon	16,026	6,066 27							16,026	6,066 27	
	St. Mary's Wharf	21,963	4,752 55							21,963	4,752 55	
	Georgetown Railway Wharf	1,002	408 32	61,686 68		23,625	5,126 56	10,428 90		1,002	408 32	72,115 58
	Carigan									23,625	5,126 56	
	Charlottetown R'y. Wharf	54,618	15,003 50							54,618	15,003 50	
	do Pownal Wharf	14,193	2,963 50							14,193	2,963 50	
	do Ferry	4,045	670 61							4,045	670 61	
Queen's	do Steam Nav. Co.	7,668	4,904 15							7,668	4,904 15	
	do Connolly's Whf	5,343	3,417 17							5,343	3,417 17	
	do Peake Bros do	5,355	3,424 85							5,355	3,424 85	
	Crapaud	89,782	27,493 03							89,782	27,493 03	
	Pownal Bay	23,610	6,536 20							23,610	6,536 20	
	Rocky Point	82,920	13,426 13							82,920	13,426 13	
	Vernon River	17,860	6,326 72							17,860	6,326 72	
	Wood Islands	2,780	548 00							2,780	548 00	
	Nine Mile Creek	31,650	6,286 46							31,650	6,286 46	
	Hickey's Wharf	750	150 51							750 00	150 51	
Prince	Carr's Point	12,165	2,441 28							12,165	2,441 28	
	Pinette	3,825	756 21							3,825	756 24	
	Fort Augustus	3,195	631 68							3,195	631 68	
	South Port Ferry	33,015	5,528 75							33,015	5,528 75	
	Red Point	7,161	3,879 60							7,161	3,879 60	
	North Rustico	13,536	4,777 38							13,536	4,775 38	
	South Rustico	11,649	4,109 67							11,649	4,109 67	
	Gauthier Creek	17,847	8,305 50	121,578 93						17,847	8,305 50	121,578 93
	Summerside	29,396	8,013 37							29,396	8,013 37	
	Hurd's Point Pier	41,070	7,289 95							41,070	7,289 95	
Tignish	11,387	13,005 45							11,387	13,005 45		
Cascumpec	1,157	538 42							1,157	538 42		
Cape Traverse	16,740	5,105 89	33,953 08						16,740	5,105 89	33,953 08	
		865,376	217,218 69	217,218 69		48,060	10,428 90	10,428 90		261,298	227,647 59	

Department of Public Works.

EXPENDITURE for Dredging in Quebec for the Twenty-three Years ended 30th June, 1895, from Appropriations Maritime Provinces.

County.	Locality.	Total for the Twenty-two Years ended 30th June, 1894.				For the Year 1894-95.			Total Quantity.	Total Cost.	Cost for each County.
		Quantity.	Cost.	Cost for County.	Quantity.	Cost.	Cost for County.				
		c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	
Magdalen Islands, Co.	Houase Harbour.....							6,800	2,392 92	2,034 97	
Gaspé.....	Amherst Harbour.....							496	232 06	825 47	
Témiscouata.....	River du Loup.....							2,587	825 47	3,997 59	
Rimouski.....	Rimouski.....							8,123	3,997 59		
								18,006	7,458 03	7,458 03	

STATEMENT of Dredging, showing Quantities removed in each Province, and cost of each Work for the Twenty-three Years ended 30th June, 1895.

Fiscal Year.	NEW BRUNSWICK.		NOVA SCOTIA.		QUEBEC.		PRINCE EDWARD ISLAND.		Total Quantity.	Total Expenditure.	Cost per cubic Yard.
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.			
	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	\$ cts.
1872-73.	38,060	13,240 50	23,260	8,422 70	6,800	2,392 92			61,320	21,663 20	0 35 328
1873-74.	57,725	14,395 57	18,600	6,545 61					83,125	23,334 10	0 28 071
1874-75.	78,223	17,325 05	24,416	13,238 83					121,294	40,456 77	0 33 354
1875-76.	79,985	17,040 52	91,974	21,885 90					290,192	49,818 22	0 21 642
1876-77.	97,690	23,161 90	127,755	34,846 74					299,885	70,766 91	0 23 594
1877-78.	81,070	23,323 92	106,857	29,697 94					270,787	64,943 04	0 23 983
1878-79.	132,555	27,400 22	116,307	28,267 59					295,352	64,831 88	0 21 951
1879-80.	63,540	16,581 79	127,684	34,765 84	765	374 08	46,490	9,164 07	228,379	64,396 69	0 28 197
1880-81.	44,315	12,385 85	87,118	23,061 64	2,317	693 44	46,395	9,298 53	180,985	45,439 46	0 25 232
1881-82.	79,640	18,626 87	89,566	33,363 71			47,325	9,356 57	216,531	61,347 15	0 28 331
1882-83.	48,565	13,422 70	143,616	42,996 93			68,535	11,080 37	260,716	67,500 00	0 25 890
1883-84.	47,058	17,103 38	157,560	49,050 58			79,750	13,855 05	284,318	79,509 01	0 27 959
1884-85.	128,997	24,460 35	76,164	25,250 73	8,123	3,997 59	55,075	10,668 01	268,359	62,376 68	0 23 242
1885-86.	68,505	14,874 63	56,790	21,482 05			17,137	8,349 66	142,432	46,706 34	0 32 792
1886-87.	69,440	11,452 86	53,400	23,621 19			6,137	6,214 74	128,377	43,288 79	0 33 056
1887-88.	50,152	9,252 50	84,175	29,847 60			3,775	5,899 90	138,102	46,000 00	0 32 058
1888-89.	63,633	16,598 08	56,910	32,697 00			24,240	15,502 95	146,783	64,798 03	0 27 029
1889-90.	86,068	20,544 93	59,783	22,821 55			31,422	11,085 39	177,273	54,405 87	0 30 071
1890-91.	96,588	20,375 09	61,698	24,386 57			19,004	8,843 92	177,290	53,651 53	0 30 023
1891-92.	75,023	20,592 85	81,993	27,376 08			31,382	12,788 34	188,898	60,757 29	0 32 249
1892-93.	108,035	23,743 26	40,834	18,125 58			66,585	15,112 83	215,454	56,980 67	0 26 044
1893-94.	77,505	21,564 27	59,581	28,664 99			61,536	12,269 74	198,622	62,498 50	0 31 046
1894-95.	59,715	13,630 11	105,463	32,202 70			48,060	10,428 90	213,238	56,261 71	0 26 384
	1,732,037	411,097 20	1,851,534	614,530 05	18,005	7,458 03	923,436	227,648 09	4,527,012	1,260,731 52	0 27 084

Department of Public Works.

STATEMENT of Dredging, showing Quantities removed by hand in each Province, and cost of each Dredging for the Twenty-three Years ended 30th June, 1895.

Fiscal Year.	NEW BRUNSWICK.		NOVA SCOTIA.		QUEBEC.		PRINCE EDWARD ISLAND.		Total Quantity.	Total Expenditure.	Cost per cubic Yard.
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.			
	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	\$ cts.
1878-79.....			245	555 13					245	555 13	2 26 58
1879-80.....			12,370	3,666 90					12,370	3,666 90	0 29 64
1880-81.....			11,140	2,560 25					11,140	2,560 25	0 22 98
1881-82.....			10,640	2,660 50					10,640	2,660 00	0 24 90
1882-83.....			8,190	2,500 00					8,190	2,500 00	0 30 52
1883-84.....			5,460	2,500 00					5,460	2,500 00	0 45 78
1884-85.....	Nil		Nil		Nil		Nil		Nil		
.....			48,045	14,432 28					48,045	14,432 28	0 30 03

STATEMENT of Dredging in the Maritime Provinces, showing quantities removed by and expenditure of each Dredge during the Twenty-three Years ended 30th June, 1895.

Dredge.	Total Quantities and Cost for Twenty-two Years ending 30th June, 1894.				1894-95.				Total for Twenty-three Years ended 30th June, 1895.									
	Total Quantity.		Cost.		Per Cubic Yard.		Quantity.		Cost.		Per Cubic Yard.		Total Quantity.		Total Cost.		Cost per Cubic yd.	
	Yds.	Cts.	\$	cts.	Yds.	Cts.	Yds.	Cts.	\$	cts.	Yds.	Cts.	Yds.	Cts.	\$	cts.	Yds.	Cts.
"New Dominion"	933,803	0 19 05	177,930	65	49,125	0 18 867	982,928	187,199	23	0 19 04								
"Canada"	625,369	0 34 34	214,769	51	37,830	0 25 458	663,199	224,400	16	0 33 83								
"Cape Breton"	534,938	0 25 99	139,074	33	.....	.....	534,938	139,074	33	0 25 99								
"Prince Edward"	869,466	0 24 69	213,863	73	48,060	0 21 699	917,526	224,292	63	0 24 44								
"St. Lawrence"	880,286	0 30 59	269,363	98	35,433	0 41 185	915,719	283,987	20	0 31 00								
"George McKenzie"	456,347	0 40 09	182,970	34	42,790	0 28 839	499,137	195,310	70	0 39 12								
	4,300,209	0 27 85	1,197,972	54	213,238	0 26 384	4,513,447	1,254,234	25	0 27 28								

STATEMENT of Dredging performed by hand in the Maritime Provinces, showing quantities removed and Expenditure at each locality for Twenty-three Years ended 30th June, 1895.

Locality.	Total Quantity.	Total Cost.	Per Cubic Yard.
	Yds.	\$	Cts.
Farrsboro', N.S.	42,595	12,804	68
Windsor, N.S.	5,450	1,627	60
	48,045	14,432	28

# Department of Public Works.

## PROVINCE OF QUEBEC.

### SHIP CHANNEL, RIVER ST. LAWRENCE, BETWEEN MONTREAL AND QUEBEC.

The continuation of the dredging operations on the ship channel between Montreal and Quebec to the depth of  $27\frac{1}{2}$  feet at lowest water, was carried on at the following places during the fiscal year 1894-95, viz., Lotbinière, Contrecœur and Varennes.

#### *Lotbinière.*

The further deepening of the south half of the ship channel, at Barre à Boulard, was commenced by the new elevator dredge "Laval" on the 26th September, 1894, and continued until the 27th June, 1895, when it completed this work, being afterwards removed to the north half, where it continued till the end of the fiscal year. Quantity removed, consisting of stones imbedded in hard pan and large boulders, 31,675 cubic yards, at a cost of \$17,334.09, or  $54\frac{72}{100}$  cents per cubic yard.

#### *Contrecœur.*

Dredge No. 12 was again placed on the Contrecœur channel where it worked the whole of the fiscal year, continuing the widening of the bend above the Bell Mouth, the straightening of the bank on the north side as well as the cleaning up of the channel. Total quantity dredged, consisting of soft clay 241,660 yards, costing \$25,041.33, or  $10\frac{32}{100}$  cents per cubic yard.

On the 24th April, 1895, Dredge No. 8 commenced work at St. Ours, in the Contrecœur Channel, the work in hand being the further deepening of this portion at Bell Mouth to 29 feet at low water, and continued dredging there till the end of the fiscal year. Quantity removed 75,220 cubic yards, consisting of clay, sand and stones at a cost of \$8,402.77, or  $11\frac{17}{100}$  cents per cubic yard.

Appended are abstract tables of details connected with the work.

## PUBLIC WORKS

## STATEMENT showing Classification of Cost of Dredging on the Ship Channel.

Vessel.	Fuel.	Wages.	Board.	Stores and Materials.	Rebuilding and Repairs.	Cost of Building New Plant.	General Expenses.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dredge "Laval".....	638 70	2,423 72	656 29	1,881 59	1,230 89	.....	1,168 78
do No. 12.....	2,373 80	3,011 95	1,020 13	569 57	4,132 18	.....	1,872 73
do No. 11.....	36 40	121 08	30 33	60 43	114 43	.....	89 71
do No. 8.....	.....	.....	.....	.....	.....	.....	.....
Louise Basin.....	966 88	2,030 70	641 49	514 13	1,013 28	.....	883 94
Contrecoeur.....	539 22	1,132 50	357 74	286 74	565 10	.....	492 96
Stone Lifter No. 1....	12 60	274 82	69 47	1 28	36 98	.....	67 59
do No. 2....	42 00	279 26	30 67	9 05	5,051 25	.....	926 06
Tug "John Pratt"....	1,115 40	2,083 65	720 87	540 95	1,419 54	.....	1,143 04
do "Cartier".....	516 05	1,415 71	445 13	311 75	84 72	.....	474 46
do "St. Francis"....	901 25	1,633 74	515 91	223 48	596 01	.....	593 88
do "C. J. Brydges" ..	1,076 25	1,392 95	508 49	99 44	430 91	.....	583 15
do "M. F. Parsons" ..	31 90	104 82	14 00	.....	448 82	.....	85 40
do "St. James".....	699 30	1,214 51	437 03	116 36	200 00	.....	422 13
<i>New Dredge Plant.</i>							
New Dredge.....	.....	.....	.....	.....	.....	38,193 38	6,535 12
Dredge "Laval".....	.....	.....	.....	.....	.....	6,606 42	1,130 41
Tug "Cartier".....	.....	.....	.....	.....	.....	284 61	48 64
	8,949 75	17,119 41	5,447 55	4,614 77	15,324 11	45,084 41	16,518 00



# Department of Public Works.

OF CANADA.

between Montreal and Quebec, for Fiscal Year ended 30th June, 1895.

Salaries and Official Expenses.	Total Cost.	Stone Lifter Service.	Tug Service.	Total Cost of Dredge and Plant.	Number of Working Days.	Cost per Day.	Number of Cubic Yards Dredged.	Cost per Cubic Yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.		\$ cts.		cts.
876 20	8,876 17	1,956 49	6,501 43	17,334 09	97	178 70	31,675	54 $\frac{72}{100}$
1,404 05	14,384 41	2,464 94	8,191 98	25,041 33	166	150 85	241,660	10 $\frac{32}{100}$
67 12	519 50	114 45	380 22	1,014 17	4	253 54	3,080	32 $\frac{32}{100}$
662 67	6,713 09	1,932 37	6,421 60	15,067 06	104	144 87	71,740	21
369 56	3,743 82	1,077 67	3,581 28	8,402 77	58	144 87	75,220	11 $\frac{17}{100}$
50 67	513 41							
694 22	7,032 51							
856 87	7,880 32							
355 69	3,603 51							
445 12	4,909 39							
437 16	4,528 35							
64 02	748 96							
316 65	3,405 98							
4,899 14	49,672 64							
847 41	8,584 24							
36 45	369 70							
12,383 00	125,441 00							

**ABSTRACT of work done, in deepening the Ship Channel in the St. Lawrence River, between Montreal and Quebec, for Fiscal year ended 30th June, 1895.**

Vessels.	Locality of Dredging.	Time of Service.		Nominal working time 10 hour per day.		Dredging machinery in motion.		Quantity Dredged, in cubic yards, scow measurement.			Character of Soil.	Quantity dredged, in cubic yards in each locality.			
		Days.	Total days.	Hours.	Total hours.	Hours.	Total hours.	Earth.	Rock.	Total.		Lotbinière.	Varenes.	Contrecoeur.	Louise Basin.
Dredge Laval.....	Lotbinière.....	97	97	970	970	658	658	.....	31,675	31,675	Stones, hard-pan, clay and boulders	31,675	.....	.....	.....
Dredge No. 11.....	Varenes.....	4	4	40	40	33	33	3,080	3,080	3,080	Clay and stones	.....	3,080	.....	.....
Dredge No. 12.....	Contrecoeur.....	166	166	1,660	1,660	1,404	1,404	241,660	241,660	241,660	Soft clay.....	.....	.....	241,660	.....
Dredge No. 8.....	Louise Basin.....	104	104	1,040	.....	707½	.....	71,740	.....	.....	Sand, gravel and stones.	.....	.....	.....	71,740
Dredge No. 8.....	Contrecoeur.....	58	162	580	1,620	487	1,194½	75,220	.....	146,960	Clay and sand.....	.....	.....	75,220	.....
								391,700	31,675	423,375		31,675	3,080	316,880	71,740

115

## Department of Public Works.

### DREDGING AT BERTHIER (EN HAUT).

Berthier (en haut) is on the north shore of the River St. Lawrence, 45 miles east of Montreal, and is opposite Sorel.

From the 9th until the 31st August, 1894, the dredge "St. Pierre" made a cutting at the head of Isle au Foin, from the north channel (so called) to the main channel of the River St. Lawrence, removing 10,209 cubic yards of soft clay and sand. The dredge also worked below the Raulston River (near Berthier) from the 3rd September until the 7th November, and removed 33,136 cubic yards of clay and sand. The depth of water made at both places was  $8\frac{1}{2}$  feet.

### DREDGING AT CHARLEMAGNE.

Charlemagne, in the County of L'Assomption, is a small village on the River L'Assomption, and opposite the lower or eastern end of the Island of Montreal, and 16 miles distant from the city of Montreal.

For several years the department has had dredging done at this place, and from the 6th October until the 7th November, 1894, the dredge "Nithsdale" worked in front of the wharf, dredging to 10 feet below zero, and excavated 12,741 cubic yards of clay.

### DREDGING AT CHATEAUGUAY.

Chateaugay Basin is at the mouth of the Chateaugay River, 5 miles from Caughnawaga, and 14 miles south-west of Montreal.

The dredge "St. Louis" worked in the steamboat channel on the eastern side of basin from the 7th of September until the 13th October, 1894, made two cuts of 200 feet long, 46 feet in width, and 6 feet in depth, taking out 1,259 cubic yards of hardpan, 159 of boulders and 930 of sand.

### DREDGING AT CHICOUTIMI.

Chicoutimi, in the county of the same name, is at the head of navigation, on the River Saguenay,  $7\frac{1}{2}$  miles above Tadousac.

From the 2nd July until the 9th November, 1894, the elevator dredge No. 11 was engaged in removing several shoals in the River Saguenay, near Chicoutimi, deepening the water to 12 feet below zero and removing 73,342 cubic yards of hardpan, boulders, gravel, clay and stone and sand.

### DREDGING AT DORVAL.

Dorval, Jacques Cartier County, is on Lake St. Louis, on the south-west side of the Island of Montreal.

Work was done here by the dredge "St. Louis" deepening the approach from navigable water to the boat landing, and was engaged in this work from the 13th October until the 19th November, 1894, and from the 7th May until the close of the fiscal year 1895, made three cuts of 960 feet, three of 700 feet, and two of 100 feet long, each cut 23 feet in width, and 6 feet in depth; 16,990 cubic yards of clay were removed.

### DREDGING AT ISLE GROS BOIS.

Isle Gros Bois is one of the group of islands situated in the River St. Lawrence, about 6 miles east of the city of Montreal.

The dredge "St. Louis" operated at this locality from the 14th August to the 5th September, 1894, deepening the approach to the wharf from navigable water, made a cut of 1,400 feet in length, 22 feet in width and 6 feet in depth, removing 3,030 cubic yards of clay and 360 of hardpan.

## DREDGING IN THE LOUISE BASIN.

At the beginning of the fiscal year dredge No. 8 of the ship channel fleet, was working in the Louise Basin and continued doing so until the close of the season of 1894, cleaning up and widening the south-west side of the basin to a depth of 31 feet at low water. The quantity of material removed was 71,740 cubic yards of sand gravel and stones, at a cost of 21 cents per cubic yard.

## DREDGING AT LOUISEVILLE.

Louiseville, County of Maskinongé, is situated on the River du Loup, which empties into Lake St. Peter, on its northern shore. The village lays about 3 miles inland from the lake, and is 74 miles east of Montreal.

Between the 10th May and 17th June, 1895, the dredge "Nithsdale" was engaged in dredging on a shoal which had formed at the mouth of the river, and through which a cut was made of 2,300 feet long, and 26 feet wide, extending from the mouth of the river outwards into Lake St. Peter, making a depth of 9 feet at low water, and removed 9,384 cubic yards of sand and 6,953 of clay.

## DREDGING AT NICOLET.

The River Nicolet empties into the River St. Lawrence, on its southern shore at the foot of Lake St. Peter.

Dredging was done by the dredge "St. Pierre" from the 7th until the 29th June, deepening the water at the mouth of the river, removing 10,425 cubic yards of clay, and making a depth of 8½ feet at low water.

## DREDGING AT RIVER ST. PIERRE.

The River St. Pierre empties into the St. Lawrence on its north shore, near Point St. Charles, Montreal.

Between the 2nd July and 11th August, 1894, the dredge "St. Louis" deepened the channel 300 feet in length, 66 feet in width, to a depth of 5 feet at low water mark. The material taken out amounted to 2,888 cubic yards of hardpan, boulders clay and stone.

## DREDGING AT ST. PLACIDE.

St. Placide, a village in the County of Two Mountains, is on the north bank of the River Ottawa, and 18 miles above its junction with the River St. Lawrence, and 9 miles from St. Andrews.

Between the 16th July and the 3rd October, 1894, and the 21st and 29th June, 1895, the dredge "Nithsdale" was engaged in deepening the water in the steamboat channel, as well as at the wharf. Dredging was done to a depth of 7 feet below zero or summer level, and 30,641 cubic yards of clay and 668 of boulders were removed.

## PROVINCE OF ONTARIO.

## DREDGING AT AMHERSTBURG.

Amherstburg is a port of entry, in the county of Essex, situated on the Detroit River, 5 miles above Lake Erie.

For several years past the department has had a dredge working at Amherstburg, deepening the river bed in front of the various wharfs, in order to accommodate the modern heavy draught vessels navigating the lakes, many of them calling at this port for coal, etc.

## Department of Public Works.

The dredge "Ontario" worked at this locality from the 2nd July until the 15th November, 1894, made 7 cuts in line with the wharfs of 175, 210, 300, 750, 660, and two of 600 feet long, each cut 23 feet wide, and to a depth of 19 feet below zero. The dredge also worked on a shoal in the river channel, called the "New York" shoal, and, as far as practicable, removed all loose material from it, leaving only solid rock. The assistance of a diver had to be obtained to assist in the removal of a quantity of very large boulders, which were found while dredging, and which could not be handled by the dredge in the ordinary way.

The total quantity of material removed amounted to 11,802 cubic yards of hard-pan, clay, boulders and stones.

### DREDGING AT BELLEVILLE.

Belleville, the shire town of the County of Hastings, is situated on the Bay of Quinté at the mouth of the River Moira, and is 43 miles west of Kingston.

For several years past the department has been improving the harbour and river by dredging, which being very much needed in consequence of shallow water existing, especially at the mouth of the river where ice jams would form in the spring of nearly every year, thereby causing floods, the dredging operations performed at this locality have been very beneficial.

The dredge "Queen" worked here from the 3rd of July, 1894, to the 25th September and from the 17th October until the 10th November, made one cut of 455 feet long between the lighthouse and Mill Island, and on the western side of this island 4 cuts were made of 35, 100, 260 and 495 feet long, each cut being 25 feet wide, and all to a depth of 9 feet. In the River Moira, 7 adjoining cuts were made of 100, 118, 123, 170, 215, 230 and 240 feet long, to a depth of from 5½ to 6 feet. The material removed from the river consisted principally of broken rock, produced by blasting. The amount of materials removed were 11,082 cubic yards of clay and stone, 6,100 of gravel, and 512 of boulders.

### DREDGING AT COLLINGWOOD.

Collingwood, County of Simcoe, is on the Nottawasaga Bay, on the south shore of Georgian Bay, 94 miles distant from Toronto.

The harbour is very large and commodious, being protected on the north and east sides by extensive breakwaters, and in order to assist navigation, the department has for several years had a dredge working here, deepening the water in the harbour generally, as well as at the many wharfs.

The dredge "Challenge" worked here from the 2nd of July until the 29th August, 1894. Made two cuts on the hard-pan outside the breakwater, at the harbour entrance of 500 and 350 feet long, each cut being 25 feet wide, and from the Grand Trunk Railway elevator wharf to the main channel three cuts were made of 910, 810 and 320 feet long, 24 feet wide each cut, and all dredged to 16 feet below zero.

1,560 cubic yards of hard-pan, and 1,980 of clay were removed.

### DREDGING AT FRENCHMAN'S BAY.

Frenchman's Bay, or Pickering Harbour, is on Lake Ontario, 21 miles east of Toronto.

The dredge "Nipissing" worked at this locality from the 2nd until the 23rd of October, 1894. Two cuts were made between the piers of 708 feet long, 45 feet wide, to 11 feet deep, and removed 4,410 cubic yards of sand.

### DREDGING AT GODERICH.

Goderich is situated on the southern side of the River Maitland, on the east side of Lake Huron, in the County of Huron, 68 miles to the northward of Sarnia. The harbour is an artificial one, having an entrance between piers from the lake.

Dredge "No. 9" worked here from the 2nd until the 18th July, 1894, dredging through a sand shoal at the mouth of the piers, removing 10,800 cubic yards of fine sand.

#### DREDGING AT HAMILTON.

Hamilton Harbour is a part of Burlington Bay, which lies in front of and adjacent to the city of Hamilton.

The dredge "Nipissing" was engaged at this locality from the 2nd July until the 11th of September, 1894, continuing the dredging on a shoal in front of the wharfs, upon which three cuts of 490 feet long and 66 feet wide were made, also made three cuts at the Electric Railway Company's wharf of 148 feet long and 57 feet wide. At James Street slip, two cuts of 210 feet long and 44 feet wide were made, and in the Burlington Channel or Canal, obstructions at both ends and in the channel generally were removed. The depth of water made in all the cuts was 14 feet, and the following quantities were taken out :—

	Cubic yards.
Fine sand.....	13,440
Ordinary sand.....	1,000
Clay and stone.....	1,310
or a total of 15,750 cubic yards.	

#### DREDGING AT THE KAMINISTIQUIA RIVER.

This river empties into Thunder Bay, Lake Superior, to the westward of Port Arthur, in the electoral district of Algoma. From this river large quantities of grain are shipped to the east.

The elevator dredge "No. 9" worked from the 2nd August to the 10th November, 1894, and from the 6th May until the close of the fiscal year 1895, on a shoal extending from the mouth of the river far out into the bay, through which a cutting was made of 4,100 feet long, having a width of 200 feet, to 21 feet in depth. The material excavated amounted to 162,950 cubic yards of sand, clay and mud.

#### DREDGING AT KINCARDINE.

Kincardine is situated at the mouth of the Penetangore River which empties into Lake Huron, 31 miles north of Goderich.

The harbour having become silted up a dredge was employed from the 6th to the 25th August, in removing the accumulation of sand, etc. The dredge worked 144 hours, and removed 6,000 cubic yards of material, sand and clay, at a total cost of \$1,195.83.

#### DREDGING AT KINGSVILLE.

Kingsville is in the electoral district of South Essex, on Lake Erie, and is distant about 25 miles from the mouth of the Detroit River. The harbour is formed by two piers, built from the shore out into the lake.

The entrance to the harbour being obstructed by a sand-bar, the dredge "Ontario" was put to work, on the 6th May 1895, to remove it, and continued working until the 29th of the same month. Two cuts of 450 feet long, having a total width of 60 feet and 12 feet in depth were made, removing 6,060 cubic yards of fine sand.

#### DREDGING AT MIDLAND.

Midland, Simcoe county, is the Georgian Bay terminus of the Grand Trunk Railway.

The dredge "Challenge" was employed here from the 3rd September to the 24th October, 1894 (close of navigation), resuming operations again on the 15th May and

## Department of Public Works.

continued until the 14th June, 1895. Dredging was done on a shoal of hard-pan and boulders at the entrance to harbour, upon which seven adjoining cuts were made of 96, 175, 225 and four of 300 feet long, 24 feet wide each cut, and 17 feet in depth; the dredge also made four cuts in front of "Playfair's" mill of 200, 250, 325 and 400 feet long, 20 feet wide each cut, to a depth of 10 feet. Two old sunken cribs were also removed near the mill.

15,110 cubic yards of hard-pan, clay, boulders and sand were removed.

### DREDGING AT OAKVILLE.

Oakville, County of Hamilton, is a port of entry on Lake Ontario, 22 miles west of Toronto, and 18 miles east of Hamilton.

The dredge "Nipissing" worked here from the 27th May until the 21st June, 1895, deepening the water between the piers to 12 feet at low water, made three adjoining cuts of 780, 810 and 330 feet long, each cut being 25 feet wide, and removed 10,740 cubic yards of clay, stones and sand.

### DREDGING AT PENETANGUISHENE.

Penetanguishene, County of Simcoe, is an inlet of Georgian Bay. It is a terminus of one of the branches of the Grand Trunk Railway.

On the 19th June, 1895, the dredge "Challenge" began working and finished on the 29th of the same month, having made four cuts through a shoal in the bay of 200 feet long, 80 feet wide, and leaving a depth of 15 feet of water, removing 3,030 cubic yards of clay.

### DREDGING AT PORT ELGIN.

Port Elgin is in the county of Bruce and is situated on the eastern shore of Lake Huron, four miles south of Southampton and 24 miles north from Kincardine.

The harbour having become silted up, a dredge was engaged to remove the accumulation of sand. Work was commenced on the 27th August and closed on the 17th September, the dredge having worked 120 hours and removed 4,990 cubic yards of material at a total cost, including inspection, of \$10,015.89.

### DREDGING AT PORT HOPE.

Port Hope, in the County of Durham, is situated on Lake Ontario, 63 miles to the eastward of Toronto, and 102 miles above Kingston.

The harbour is an artificial one, formed by piers which have been built into the lake.

The dredge "Nipissing" was engaged in removing a quantity of sand which had accumulated at the mouth of the piers, beginning work on the 24th June, and continuing up to the close of the fiscal year 1895. Five cuts were made of 87, 151, 273, 355 and 408 feet long, each cut 25 feet wide, to a depth of 12 feet below zero, removing 1,980 cubic yards of sand.

### DREDGING AT PORT STANLEY.

The harbour of Port Stanley is at the mouth of Kettle Creek, in the County of Elgin, on the north shore of Lake Erie, 84 miles from Port Colborne, and 24 miles from London, and is formed by two piers extending into the lake, one on each side of the mouth of the creek.

A sand bar had formed at the entrance to harbour and between the piers. The dredge "Ontario" worked at this locality from the 6th until the 29th June, 1895;

made two cuts of 725 feet long, 60 feet wide, outside the piers; and two cuts of 400 feet long, 50 feet wide, between the piers, all to a depth of 12 feet at low water. 11,160 cubic yards of sand were removed.

#### DREDGING AT TRENTON.

Trenton is a port of entry on the Bay of Quinté at the mouth of the River Trent, and where is situated the eastern entrance to the Murray Canal. It is 101 miles east of Toronto.

The dredge "Queen" operated at this locality from the 25th September to the 16th of October, 1894, and from the 29th April until the close of the fiscal year 1895.

At Cooley's wharf the following nine cuts were made:—two of 175 feet, two of 150, two of 100, and one each of 250, 235 and 120 feet long, each cut being 25 feet wide, and to the depth of 10 feet.

At Hethbun's wharf, two cuts of 175, and one cut of 160 feet long, having a total width of 75 feet, to a depth of 10 feet were made.

At Crowe's wharf two cuts were made of 50 and 230 feet long. At Squire's wharf one cut of 155 feet long was made. At Gilmour's wharf two cuts of 100 feet, and one of 150 feet long were finished, all cuts being 25 feet wide, and to a depth of 10 feet below zero.

In the north channel, between the town of Trenton and the Murray Canal entrance, two cuts of 800 feet, one of 300, and one of 250 feet long were made, to a depth of 10 feet at low water mark, and leaving the cuts 25 feet wide.

The following quantities were removed:—

3,194	cubic yards	of clay and stone.
1,868	do	boulders.
4,996	do	hardpan.
1,768	do	mud.
1,694	do	clay

or a total of 13,520 cubic yards.

#### DREDGING AT WHITBY.

Whitby is situated on the north shore of Lake Ontario, 30 miles east of Toronto.

A sand shoal having formed at the mouth of and between the piers, the dredge "Nipissing" was put to work on it on the 16th September, continuing until the 1st October, 1894; made two cuts of 578 feet long, 44 feet wide, on this shoal, and one cut in the harbour, alongside the eastern pier, of 116 feet long, and 22 feet wide, all to a depth of 12 feet, and removing 3,780 cubic yards of fine sand.



Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "Challenge" during the Year ended 30th June, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Wages .....	395 00		382 50		391 67		395 00		140 63		30 00		30 00		30 00		117 00		283 16		384 52		395 00		2,074 48	
Coal .....	378 28				520 07																32 00		237 76		1,228 11	
Wood .....					87 00		106 75																		193 75	
Provisions .....	103 59		98 61		102 24		103 64		35 06																644 94	
Stores .....			3 62		5 27																				38 40	
Equipment .....																									86 01	
Repairs .....	75 56		85 53		43 53		34 94		4 07																1,694 94	
Pilotage .....																										
Towage .....																										
Contingencies .....	12 09		38 39						14 83																129 51	
Totals. ....	964 52		608 65		1,149 78		640 33		194 59		30 00		30 00		30 00		117 00		1,716 98		735 45		772 84		6,990 14	
Working expenses .....	888 96		523 12		1,106 25		605 39		190 52		30 00		30 00		30 00		117 00		882 12		439 24		765 18		5,107 78	
Repairs, ordinary .....	75 56		85 53		43 53		34 94		4 07										176 19		296 21		7 66		1,723 69	
do extraordinary .....																			1,158 67						1,158 67	
Totals. ....	964 52		608 65		1,149 78		640 33		194 59		30 00		30 00		30 00		117 00		1,716 98		735 45		772 84		6,990 14	

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "ONTARIO" DURING THE YEAR ENDED 30TH JUNE, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.				
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.			
Wages.....	395	00	395	00	395	00	395	00	212	50	30	00	30	00	30	00	305	00	425	91	424	00	395	00	3,432	41			
Coal.....	240	45	174	90	124	44	112	30	49	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,135	99		
Wood.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Provisions.....	102	75	102	75	102	75	104	70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Stores.....	14	19	1	03	14	07	13	65	9	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Equipment.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Repairs.....	58	23	62	22	21	04	59	12	88	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Pilotage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Towage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Contingencies.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Totals.....	810	62	761	95	657	30	699	98	737	52	30	00	30	00	30	00	370	31	827	43	769	89	873	86	6,598	86	.....	.....	
Working expenses.....	752	39	699	73	636	26	640	86	649	27	30	00	30	00	30	00	30	00	285	72	594	56	829	12	5,209	93	.....	.....	
Repairs, ordinary.....	58	23	62	22	21	04	59	12	88	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
do extraordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	810	62	761	95	657	30	699	98	737	52	30	00	30	00	30	00	370	31	827	43	769	89	873	86	6,598	86	.....	.....	

## Department of Public Works

### CLASSIFICATION of Disbursements of the Dredge "Nipissing" during the Year ended 30th June, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Wages.....	395	00	407	00	395	00	395	00	132	95	329	95	371	38	635	76	1,634	77	1,433	37	2,434	04	416	60	8,980	82
Coal.....	269	27	224	55	157	66	292	50	70	64	70	64	.....	.....	.....	.....	.....	.....	.....	.....	66	86	364	59	1,386	07
Wood.....	104	94	106	47	106	44	104	94	32	79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	67	52	103	90	627	00
Stores.....	.....	.....	1	49	4	82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	44	15	65	52	40
Equipment.....	20	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	22	82	37	253	34
Repairs.....	43	31	30	90	8	16	39	59	.....	.....	.....	.....	869	93	48	51	311	99	618	07	328	91	106	23	2,405	60
Pilotage.....	.....	.....	8	00	8	00	.....	.....	30	00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38	00
Towage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies.....	12	90	48	70	1	83	2	44	7	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	109	53
Totals.....	785	82	819	11	681	91	834	47	273	78	329	95	1,241	31	684	27	2,043	35	2,083	20	2,986	25	1,089	34	13,852	76
Working expenses.....	742	51	788	21	673	75	794	88	273	78	30	00	44	65	30	00	126	59	61	76	388	94	983	11	4,938	18
Repairs, ordinary.....	43	31	30	90	8	16	39	59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	397	13	106	23	625	32
do extraordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	299	95	1,196	66	654	27	1,916	76	2,021	44	2,200	18	.....	.....	2,289	26
Totals.....	785	82	819	11	681	91	834	47	273	78	329	95	1,241	31	684	27	2,043	35	2,083	20	2,986	25	1,089	34	13,852	76

CLASSIFICATION of Disbursements of the Dredge "Queen" during the Year ended 30th June, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Wages .....	415 00		420 00		412 50		395 00		235 80		30 00		30 00		30 00		30 00		636 53		395 00		395 00		3,424 83	
Coal .....	149 50		217 27		281 50		281 50		149 50										76 36		227 00				1,101 13	
Wood .....	113 11		112 50		107 86		103 23		59 11												103 00		103 00		701 81	
Stores .....					11 52		13 64														28 73				53 89	
Equipment .....			1 85																		128 46				236 74	
Repairs .....	38 89		111 69		73 83		4 65		57 02												255 32		91 01		638 75	
Pilotage .....																										
Towage .....																										
Contingencies .....	13 15								8 59																33 84	
Totals .....	729 65		863 31		605 71		798 02		510 02		30 00		30 00		30 00		30 00		1,104 04		862 56		597 68		6,190 99	
Working expenses .....	690 76		751 62		531 88		793 37		453 00		30 00		30 00		30 00		30 00		517 36		771 55		591 34		5,220 88	
Repairs, ordinary .....	38 89		111 69		73 83		4 65		57 02										118 56		91 01		6 34		501 99	
do extraordinary .....																			468 12						468 12	
Totals .....	729 65		863 31		605 71		798 02		510 02		30 00		30 00		30 00		30 00		1,104 04		862 56		597 68		6,190 99	

Department of Public Works.

CLASSIFICATION OF Disbursements of the Dredge "St. Louis," during the Year ended 30th June, 1895.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....	350 00	350 00	350 00	350 00	302 66	.....	.....	.....	320 05	152 16	350 00	2,224 43	4,749 30
Coal.....	.....	153 16	124 80	.....	178 08	.....	.....	.....	.....	.....	224 40	.....	680 44
Wood.....	.....	.....	.....	93 22	69 00	.....	.....	.....	.....	.....	90 00	95 50	633 06
Provisions.....	93 10	99 02	.....	13 00	8 25	.....	.....	.....	.....	27 80	21 67	.....	70 72
Stores.....	14 28	19 00	.....	.....	.....	.....	.....	.....	.....	.....	15 61	.....	48 89
Equipment.....	29 06	1 26	.....	18 09	98 98	.....	.....	.....	93 07	.....	12 14	.....	597 25
Repairs.....	.....	15 00	.....	.....	5 00	.....	.....	.....	.....	.....	.....	344 65	20 00
Pilotage.....	.....	.....	40 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	40 00
Towage.....	.....	.....	11 00	.....	9 53	.....	.....	.....	.....	.....	5 00	.....	20 00
Contingencies.....	3 35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 70	31 58
Totals.....	489 79	637 44	619 02	474 31	671 50	.....	.....	.....	413 12	179 96	718 82	2,667 28	6,871 24
Working expenses.....	460 73	636 18	619 02	456 22	572 52	.....	.....	.....	.....	27 80	356 68	448 20	3,577 35
Repairs, ordinary.....	29 06	1 26	.....	18 09	98 98	.....	.....	.....	413 12	152 16	362 14	2,219 08	1,074 81
do extraordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,219 08
Totals.....	489 79	637 44	619 02	474 31	671 50	.....	.....	.....	413 12	179 6	718 1	2,667 28	6,871 24

CLASSIFICATION of Disbursements of the Dredge "No. 9" during the Year ended 30th June, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Wages .....	609	44	567	90	565	83	610	24	453	44	37	50	50	00	50	00	690	00	20	33	654	56	649	40	4,958	64
Coal .....	34	75	.....	.....	1,632	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,834	44	4,521	59
Wood .....	21	88	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Provisions .....	162	87	168	74	190	20	193	36	122	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stores .....	6	48	.....	.....	44	25	55	95	3	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Equipment .....	12	50	3	00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Repairs .....	60	38	1,382	65	43	58	43	23	.....	.....	.....	.....	.....	.....	.....	.....	85	38	77	44	23	95	418	07	534	96
Flotage .....	100	00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Towage .....	19	90	.....	.....	139	00	6	00	146	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals .....	1,028	20	2,122	29	2,635	26	908	78	725	19	37	50	50	00	60	85	775	38	302	67	991	54	4,521	87	14,151	53
Working expenses .....	967	82	739	64	2,501	68	865	55	725	19	37	50	50	00	60	85	50	00	205	22	731	09	4,047	25	11,535	88
Repairs, ordinary .....	60	38	.....	.....	43	58	43	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do extraordinary .....	.....	.....	1,328	65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals .....	1,028	20	2,122	29	2,635	26	908	78	725	19	37	50	50	00	60	85	775	38	302	67	991	54	4,170	78	11,159	53

Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "No. 11" during the Year ended 30th June, 1895.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
Wages.....	652 00	656 00	668 05	688 10	684 73	367 00							3,713 88
Coal.....	370 00	390 00	380 00	395 00	367 35								1,892 35
Wood.....					41 25								41 25
Provisions.....	237 37	261 20	250 30	248 23	225 78								1,222 88
Stores.....	32 50	40 75	30 00	35 00	25 00								223 35
Equipment.....	215 00		3 98										218 98
Repairs.....	365 50	222 94		26 24	911 60	375 50							1,901 78
Pilotage.....				4 05									4 05
Towage.....					376 00								376 00
Contingencies.....	355 00		36 71	4 25	231 81	175 59							803 36
Totals.....	2,287 37	1,570 89	1,367 04	1,400 87	2,853 52	918 09							10,397 78
Working expenses.....	1,921 87	1,347 95	1,367 04	1,400 87	1,941 92	542 59							8,522 24
Repairs, ordinary.....	365 50	222 94				375 50							963 94
do extraordinary.....					911 60								911 60
Totals.....	2,287 37	1,570 89	1,367 04	1,400 87	2,853 52	918 09							10,397 78

CLASSIFICATION OF Disbursements of the Dredge "Nithedale" (Leased) during the Year ended 30th June, 1895.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.			
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.		
Wages.....	190	30	371	70	337	50	317	00	95	10																		
Coal.....	150	00	150	00	150	00	150	00	100	00	169	24																
Wood.....																												
Provisions.....	64	52	97	74	95	00	90	00	27	55																		
Stores.....																												
Equipment.....			27	63			28	60																				
Repairs.....																												
Floorage.....																												
Towage.....	150	00					50	00																				
Contingencies.....					2	15	25	80	1,080	00																		
Totals.....	554	82	647	07	584	65	3,215	60	1,302	65	169	24																
Working expenses.....	554	82	647	07	584	65	3,215	60	1,302	65	169	24																
Repairs, ordinary.....																												
do extraordinary.....																												
Totals.....	554	82	647	07	584	65	3,215	60	1,302	65	169	24																



Department of Public Works.

Classification and Quantities of Material removed by Dredges during the Year ended 30th June, 1895.

"CHALLENGE."

Description of Material dredged.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.
Hard-pan.....	600	960	2,600	2,000	.....	.....	.....	.....	.....	.....	.....	.....	6,160
Boulders.....	.....	.....	210	190	.....	.....	.....	.....	.....	.....	.....	.....	400
Clay.....	3,960	1,020	1,020	300	.....	.....	.....	.....	.....	.....	.....	.....	9,330
Sand—ordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,230	.....	8,790
Totals.....	4,560	1,980	3,830	2,400	.....	.....	.....	.....	.....	.....	4,230	7,590	24,680

"ONTARIO."

Hard-pan.....	1,800	2,060	780	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,640
Boulders.....	260	420	193	169	.....	.....	.....	.....	.....	.....	.....	.....	1,042
Gravel.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,530
Clay.....	2,590	1,240	1,460	240	240	.....	.....	.....	.....	.....	.....	.....	600
Clay and stone.....	.....	.....	.....	240	360	.....	.....	.....	.....	.....	.....	.....	11,160
Sand—ordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,060
Sand—very fine.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mud.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	4,650	3,720	973	1,869	600	.....	.....	.....	.....	.....	6,060	11,160	29,032

"NIPISSING."

Hard-pan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boulders.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gravel.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clay.....	.....	1,310	.....	.....	.....	.....	.....	.....	.....	.....	1,100	3,750	6,160
Clay and stone.....	.....	1,000	.....	.....	.....	.....	.....	.....	.....	.....	4,360	8,510	8,870
Sand—ordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21,630
Sand—very fine.....	7,440	4,140	5,640	4,410	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mud.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	7,440	6,450	5,640	4,410	.....	.....	.....	.....	.....	.....	5,460	7,260	36,660

CLASSIFICATION and Quantities of Material removed by Dredges during the Year ended 30th June, 1895—Continued.

“QUEEN.”

Description of Material Dredged.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.
Hard-pan.....	.....	.....	300	250	.....	.....	.....	.....	.....	.....	2,900	1,546	4,996
Boulders.....	60	68	.....	212	452	.....	.....	.....	.....	.....	574	1,014	2,380
Gravel.....	888	.....	.....	2,812	2,400	.....	.....	.....	.....	.....	.....	.....	6,160
Clay.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	222	1,472	1,694
Clay and stone.....	4,063	3,571	2,740	2,812	.....	.....	.....	.....	.....	.....	1,150	.....	14,276
Sand—ordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sand—very fine.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mud.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	248	1,520	1,768
Totals.....	4,951	3,571	3,108	6,086	2,852	.....	.....	.....	.....	.....	5,094	5,552	31,214

“ST. LOUIS.”

Description of Material Dredged.	“ST. LOUIS.”												Grand Totals.
	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	
Hard-pan.....	1,650	525	989	630	.....	.....	.....	.....	.....	.....	.....	.....	3,794
Boulders.....	73	.....	159	.....	.....	.....	.....	.....	.....	.....	.....	.....	252
Gravel.....	.....	.....	.....	3,395	3,635	.....	.....	.....	.....	.....	.....	.....	20,020
Clay.....	.....	3,030	.....	.....	.....	.....	.....	.....	.....	.....	4,230	5,730	640
Clay and stone.....	300	250	.....	930	.....	.....	.....	.....	.....	.....	.....	.....	930
Sand—ordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sand—very fine.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mud.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	2,113	3,805	1,148	4,955	3,635	.....	.....	.....	.....	.....	4,230	5,730	25,616



DREDGE STATEMENT showing Material removed at different localities, total annual Expenditure on each dredge, and average Cost per cubic yard.

## DREDGE "CHALLENGE."

Location.	Hard-pan.	Boulders.	Gravel.	Clay.	Clay and Stone.	Sand, Ordinary.	Sand, fine.	Mud.	Totals.
Collingwood .....	1,560			4,980					6,540
Midland .....	4,600	400		1,320		8,790			15,110
Penetanguishene.....				3,030					3,030
	6,160	400		9,330		8,790			24,680
Total amount of expenditure, \$6,990.14. Cost per cubic yard, 28½ cents.									

## DREDGE "ONTARIO."

Amherstburg.....	4,640	1,042		5,530	600				11,812
Kingsville.....							6,060		6,060
Port Stanley.....						11,160			11,160
	4,640	1,042		5,530	600	11,160	6,060		29,032
Total amount of expenditure, \$6,598.86. Cost per cubic yard, 22½ cents.									

## DREDGE "NIPissing."

Hamilton .....					1,310	1,000	13,440		15,750
Whitby .....							3,780		3,780
Frenchman's Bay.....							4,410		4,410
Oakville.....					4,850	5,890			10,740
Port Hope.....						1,980			1,980
					6,160	8,870	21,630		36,660
Total amount of expenditure, \$13,852.76. Cost per cubic yard, 37½ cents.									

## DREDGE "QUEEN."

Belleville .....		512	6,100		11,082				17,694
Trenton.....	4,996	1,868		1,694	3,194			1,768	13,520
	4,996	2,380	6,100	1,694	14,276			1,768	31,214
Total amount of expenditure, \$6,190.99. Cost per cubic yard, 19½ cents.									

## DREDGE "ST. LOUIS."

River St. Pierre.....	2,175	73			640				2,888
Isle Gros Bois.....	360			3,030					3,390
Chateauguay.....	1,259	159				930			2,348
Dorval .....				16,990					16,990
	3,794	232		20,020	640	930			25,616
Total amount of expenditure, \$6,871.24. Cost per cubic yard, 26½ cents.									

## Department of Public Works.

**DREDGE STATEMENT showing Material removed at different localities, &c.—Concluded.**

### DREDGE "No. 9."

Location.	Hard-pan.	Boulders.	Gravel.	Clay.	Clay and Stone.	Sand, Ordinary.	Sand, fine.	Mud.	Totals.
Goderich.....							10,800		10,800
Kaministiquia River..				58,560		100,050		4,340	162,950
				58,560		100,050	10,800	4,340	173,750
Total amount of expenditure, \$14,159.53. Cost per cubic yard, 8½ cents.									

### DREDGE "NITHSDALE."

St. Placide.....		668		28,310	2,331				31,309
Charlemagne.....				12,741					12,741
Louiseville.....				6,953		9,384			16,337
		668		48,004	2,331	9,384			60,387
Total amount of expenditure, \$8,976.27. Cost per cubic yard, 14½ cents.									

### DREDGE "No. 11."

Chicoutimi.....	14,065	1,168	1,050	14,799	23,816	18,444			73,342
Total amount of expenditure, \$10,397.78. Cost per cubic yard, 14½ cents.									

### DREDGE "ST. PIERRE."

Berthier (en haut)....				30,110		13,235			43,345
Nicolet.....				10,425					10,425
				40,535		13,235			53,770
Total amount of expenditure, \$7,308.75. Cost per cubic yard, 13½ cents.									

## PROVINCE OF MANITOBA.

## DREDGING IN THE RED RIVER AND IN LAKE WINNIPEG.

The Red River, known as the Red River of the north, is formed by the confluence of the Ottetail and Bois de Sioux Rivers at Breckenridge, in the state of Minnesota, Lat. 46° 15", Long. 96° 40", the Ottetail River rising in a region of lakes in the Ottetail Counties, east of Breckenridge, the Bois de Sioux rising in Traverse Lake, south of Breckenridge.

From Breckenridge the Red River runs in general almost due north and empties into Lake Winnipeg a distance of about five hundred and ninety miles, or about one hundred and eighty-eight miles from the boundary line. The distance from the boundary line to Lake Winnipeg in a straight line is ninety-four miles.

The mouth of the Red River is forty-five miles north-east of the city of Winnipeg and twenty-one miles from the town of West Selkirk.

The town of West Selkirk is the head of navigation for lake boats, and is connected with the railway systems at Winnipeg by a branch line of the Canadian Pacific Railway, twenty-three miles in length.

Seventeen miles below the town of Selkirk the river is divided into three branches known as the east, centre and west channels, and it is at the mouth of the east branch where dredging is now in progress.

The east branch from the "Forks" (where the river divides into the three branches named) to the lake shore, is three miles in length, and from its mouth out to a depth of water giving 11 feet, the channel is two and a half miles in length.

Previous to 1893—that is, when dredging operations first began at the mouth of the river—the west branch was adopted as the best in the interests of navigation, as the distance across the bar at the mouth of this branch, through which it was necessary to dredge out to the required depth of water, was found to be much shorter than at the east channel.

During the freshet of 1893 the west branch and channel filled up in places to such an extent that navigation would have been seriously impeded, had it been obligatory to continue dredging in that branch and channel. A careful examination, however, showed that the east channel had been scoured out by the excessively heavy ice floe, and the exceptionally high water of that year, so that the difficulty of giving uninterrupted navigation was overcome by improving this channel, and work has continued there up to the present time.

During the working season from July to September (1894), the dredge "Winnipeg" did very good work, and excellent progress was made. The cut at the outer end of the channel begun in June, was put through to a depth giving 15 feet, of water and a width of 150 feet, and the channel throughout showed not less than eight feet for a width of 300 feet.

Dredging operations closed August 25th, and the plant was laid up for the winter in the west slough near West Selkirk.

An examination of the channel was made May 10th, 1895, when it was buoyed. Not less than eight feet of water was found at that time, but a short while afterwards the water fell one foot and a half lower than ever known before, and in consequence, it was compulsory to work inside the bar and tow into the centre channel to dump, a round trip of eight miles and a half.

The channel was well staked throughout on May 23rd and dredging began on the 25th, but ceased on the 17th of June, owing to the dipper arms breaking. It took the balance of the month of June to complete repairs.

In consequence of closing work in August, 1894, a month earlier than usual; not doing any dredging in the west slough, near Selkirk, as in past seasons, and loss of time, (half of June) replacing dipper arms, the output of 1893-94 is in excess of 1894-95.

The total quantity removed during the fiscal year 1894-95, amounts to 44,440 cubic yards. Total expenditure \$10,238.82. Average cost per cubic yard 23 cents.

## Department of Public Works.

Classification of Disbursements of the Dredge "Winnipeg" and plant, Tug "Sir Hector," 1 coal barge, 2 dumping scows, during the Year ended 30th June, 1895.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....	625 00	625 00	551 67	185 00	146 00	120 00	80 00	80 00	170 05	548 00	625 00	625 00	4,380 72
Coal.....	700 00	702 10	.....	.....	.....	.....	.....	.....	.....	.....	743 92	701 75	5,847 77
Wood.....	.....	15 79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15 79
Provisions.....	263 31	300 76	158 48	46 88	28 00	.....	.....	.....	.....	176 67	236 54	231 91	1,442 55
Stores.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Equipment.....	.....	.....	67 13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Repairs.....	29 85	26 05	27 35	.....	.....	.....	.....	.....	.....	276 31	239 11	151 52	909 33
Piilage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Towage.....	.....	.....	68 78	64 30	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies.....	56 39	60 59	.....	.....	.....	.....	.....	.....	5 01	116 96	48 25	72 19	492 47
Totals.....	1,674 55	1,730 29	873 41	296 18	174 00	120 00	80 00	80 00	175 06	1,117 94	1,892 82	2,024 57	10,238 82
Working expenses.....	1,644 70	1,704 24	846 26	296 18	174 00	120 00	80 00	80 00	175 06	841 63	1,653 71	1,873 05	9,488 63
Repairs, ordinary.....	29 85	26 05	27 35	.....	.....	.....	.....	.....	.....	276 31	239 11	151 52	750 19
do extraordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	1,674 55	1,730 29	873 41	296 18	174 00	120 00	80 00	80 00	175 06	1,117 94	1,892 82	2,024 57	10,238 82

STATEMENT showing the Material removed at different Localities, the Total Annual Expenditure on each Dredge, and the average cost per cubic yard.

Localities.	Hard-pan.	Boulders.	Gravel.	Clay.	Clay and Stone.	Sand, Ordinary.	Sand and clay.	Mud and Clay.	Totals.
LAKE WINNIPEG, MAN.							c. yds.	c. yds.	c. yds.
Mouth of Red River, East Channel.....							39,440	.....	39,440
Red River, west slough, near West Selkirk....							.....	5,000	5,000
Totals.....							39,440	5,000	44,440

Total expenditure during fiscal year 1894-95, \$10,238.82.  
Average cost per cubic yard, 23 cts.

## PROVINCE OF BRITISH COLUMBIA.

### DREDGING, INNER HARBOUR—VICTORIA.

Victoria is situated at the south-eastern corner of Vancouver Island. The harbour, consisting of the inner and middle basins and the outer harbour, opens out on the Straits of Juan de Fuca. The inner and middle basins afford but limited accommodation and the entrance is narrow and tortuous. The outer harbour artificially improved and added to at the expense of Messrs. R. P. Rithet & Co., offers easy approach and accommodation for vessels of the deepest draught at low water.

Work, under the above heading, "Victoria inner harbour" was continued during the past year in removing to a depth of 14 feet below zero, mean low water spring tides, on the departmental gauge, the rocks known as Beaver and Dredger rocks, situated respectively in the inner and middle basins.

The result of this summer's work has been the removal of Beaver rock to the depth of 14 feet at mean low water spring tides, or zero on the departmental gauge, and the partial removal of Dredger rock to the same depth.

The expenditure during the year amounted to \$9,999.85.

#### SNAG BOAT "SAMSON."

The snag boat "Samson" has been employed as in previous years in connection with the removal of snags from the navigable channel of the Fraser River; in assisting in the work undertaken for the improvement of the channel at the mouth of the river; and in attending to the buoys marking the channel at the mouth of the river.



Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "Mud Lark" during the year ended 30th June, 1895.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
Wages.		516 26	614 00	610 00	644 84	643 43	641 45	655 00	655 00	655 00	655 00	963 30	7,253 28
Coal.			250 65	115 00		375 04	11 35	368 65	385 46				1,506 15
Wood.						16 93						14 00	36 86
Water.		5 93	105 46	115 34	136 76	144 82	132 76	139 50	102 39	74 95	157 68	126 33	1,330 92
Provisions		94 93			12 81	24 38	43 65		32 82		35 55	24 90	182 06
Stores		7 95				30 17	4 91	4 25	9 32		19 31	5 02	87 18
Equipment		14 20											
Repairs		159 00	456 36	674 84	207 17	836 50	334 12	19 43	231 07	7 70	527 05	174 48	3,627 72
Pilotage													
Towage.													
Wharfage.			5 00			5 00			1 00			2 25	14 25
Contingencies													
Totals.		798 27	1,431 47	1,515 18	1,001 58	2,076 27	1,168 24	1,186 83	1,417 06	737 65	1,395 59	1,310 28	14,038 42
Working expenses.		639 27	975 11	840 34	794 41	1,239 77	834 12	1,167 40	1,185 99	729 95	868 54	1,135 80	10,410 70
Repairs, ordinary.		99 00	278 05	106 81	207 17	95 93	334 13	19 43		7 70	86 31	109 88	1,844 41
do extraordinary.		60 00	178 30	568 03		740 57			231 07		440 74	64 60	2,283 31
Totals.		798 27	1,431 47	1,515 18	1,001 58	2,076 27	1,168 24	1,186 83	1,417 06	737 65	1,395 59	1,310 28	14,038 42

CLASSIFICATION OF Disbursements of the Snag Boat "Samson" during the Year ended 30th June, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Wages.....			540 00		540 00		540 00		540 00		540 00		540 00		540 00		540 00						540 00		4,320 00	
Coal.....																									416 29	
Wood.....			37 50		17 50		21 00		30 00		28 50		25 00		7 50								37 50		204 50	
Water.....																									15 00	
Provisions.....			57 37		85 45		148 65		135 70		129 73		127 91		81 94										888 45	
Stores.....																									37 42	
Equipment.....							3 50		105 33		9 16														3 50	
Repairs.....			19 10		31 80		9 00																		371 49	
Pilotage.....																										
Towage.....																										
Wharfage.....			3 00		8 46		4 12		5 00		5 79		5 16		2 95										38 98	
Contingencies.....																										
Totals.....			656 97		703 10		726 27		816 03		713 18		1,113 07		1,226 75		9 50						730 76		6,295 63	
Working expenses.....			637 37		671 30		717 27		710 70		704 02		1,113 07		1,048 68								721 23		5,924 14	
Repairs, ordinary.....			19 10		31 80		9 00		105 33		9 16				3 14							9 53		196 56		
do extraordinary.....															174 93									174 93		
Totals.....			656 97		703 10		726 27		816 03		713 18		1,113 07		1,226 75		9 50					730 76		6,295 63		

## Department of Public Works.

CLASSIFICATION OF Disbursements of the Snag Boat "Samson" while in Fraser River Service, during the Year ended 30th June, 1895.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....													
Coal.....		556 66							540 00	540 00	540 00	540 00	2,160 00
Wood.....									22 50	30 00	30 00	30 00	556 66
Water.....													112 50
Provisions.....									103 82	110 55	97 66	93 23	405 26
Stores.....									8 43				8 43
Equipment.....										123 10	97 32	39 54	259 96
Repairs.....													
Flotage.....													
Towage.....													
Wharfage.....													
Contingencies.....									4 12	5 16	3 87	3 00	16 15
Totals.....		556 66							678 87	808 81	768 85	705 77	3,518 96
Working expenses.....													
Repairs, ordinary.....		556 66							678 87	808 81	768 85	705 77	3,518 96
do extraordinary.....													
Totals.....		556 66							678 87	808 81	768 85	705 77	3,518 96

## DREDGING PLANT.

The dredging plant belonging to the department is as follows :—

*In the Maritime Provinces.*

The steam hopper dredge "St. Lawrence."  
do do "Canada."  
The dipper dredge "New Dominion" and 4 scows.  
do do "Prince Edward," 3 scows and 1 water scow.  
do do "George McKenzie," 3 scows and 1 water scow.

*In Quebec and Ontario.*

The dipper dredge "Queen," 2 scows and tug "Ottawa."  
do do "Nipissing," 2 new scows and tug "St. Paul."  
do do "St. Louis," 2 scows, coal scow and tug "Sensation."  
The elevator dredge "No. 9," 3 scows and tug "Delisle."  
The dipper dredge "Challenge," 2 scows and tug "Trudeau."  
do do "Ontario," 3 scows and tug "Sir John."  
Stone lifter No. 1.

*In Manitoba.*

The dipper dredge "Winnipeg," tug "Sir Hector," 2 scows and 1 coal barge.

*In British Columbia.*

The snag boat "Samson."  
The dipper dredge "Mud Lark," 3 scows and tug "Princess."

*Ship Channel, River St. Lawrence.*

Four elevator dredges, tugs "John Pratt," "St. James," "St. Francis," "C. J. Brydges," "M. F. Parsons," "Cartier," 2 stone lifters, 2 coal barges, 12 dump scows of 80 yards capacity, 2 scows of 150 yards capacity, 1 sounding scow and 2 coal scows, and 2 winch scows.

## NEW DREDGING PLANT.

One elevator dredge, for the ship channel between Montreal and Quebec, sister dredge to the "Laval."  
One steel tug as tender to the above dredge.  
One steel dipper dredge for the Maritime Provinces.  
These vessels are in course of construction.

## DREDGE VESSELS—REPAIRS.

*Maritime Provinces.*

"St. Lawrence" .....	\$ 3,015 65
"Canada" .....	2,558 00
"New Dominion" .....	1,712 79
"Prince Edward" .....	1,180 02
"Geo. McKenzie" .....	1,431 37

## Department of Public Works.

### *Ship Channel between Montreal and Quebec.*

" No. 8 " .....	\$ 1,578 38
" No. 11 " .....	114 43
" No. 12 " .....	4,132 18
" Laval " .....	1,230 89
" John Pratt " .....	1,419 54
" Cartier " .....	84 72
" St. James " .....	200 00
" St. Francis " .....	596 01
" M. F. Parsons " .....	448 82
" C. J. Brydges " .....	430 91
Stone lifters and scows.....	5,088 23

### *Ontario and Quebec.*

" Challenge " .....	\$ 1,158 67
" Ontario " .....	541 71
" Nipissing " .....	8,289 26
" Queen " .....	468 12
" St. Louis " .....	2,219 08
" No. 9 " .....	2,022 65
" No. 4 " .....	911 60

### *Manitoba.*

" Winnipeg " .....	\$ 750 19
--------------------	-----------

### *British Columbia.*

" Mud Lark " .....	\$ 2,283 31
" Samson " .....	174 93

## GRAVING DOCKS.

The Dominion Government owns and maintains three gravings docks, viz., the Lorne graving dock at Lévis, in the province of Quebec; the Kingston graving dock at Kingston, in the province of Ontario; and the Esquimalt graving dock at Esquimalt, near the city of Victoria, in British Columbia.

### LÉVIS GRAVING DOCK.

The Lévis Graving Dock is situated at St. Joseph de Lévis, on the southern shore of the St. Lawrence, two miles east of Quebec. The general plan of the dock is a rectangular figure, 445 feet in length by 100 in breadth, with a circular head 31 feet radius, with a square offset on each side of 19 feet, forming the top and width of the timber slides and stairs which are placed in pairs side by side at either end. The width of the inner invert, between the main body of the dock and the caisson berth, is eight feet, making the total length of the dock inside the first meeting place of the caisson 484 feet.

The wing wall on the eastern side of the entrance, extends 150 feet from the caisson into the river, while that on the western side extends 270 feet.

The depth of water on the sill is 26½ feet at high water spring tides, and 20½ at high water neap tides, while the width at the entrance is 62 feet.

The dock is closed by a caisson, travelling on rollers, worked by a pair of high pressure auxiliary engines of 34 horse power. These engines also work a small pump with a capacity of 900 gallons per minute, which is used to clean the drainage well, when the dock is in use.

The main pumps, two in number, are of the ordinary style of lift pumps, four feet in diameter with a five feet stroke and discharge 14,000 gallons per minute. They are worked by a pair of jet condensing engines, 27½ inches cylinders and three feet stroke and the horse power is 400.

Steam is supplied by three tubular boilers, 14 feet in length and 6 feet in diameter.

The dock proper is built of limestone from the Terrebonne quarries, the courses being exceptionally large and the stone of the best quality, laid in Portland cement. It is lighted with 12 arc lamps supplied from a Thomson and Houston dynamo, so that vessels can be docked at night and worked carried on without interruption.

This property of the government has been kept in excellent working condition, with the ordinary care to the pumping machinery and caisson. A coal shed which had been commenced in June, 1894, was completed in July. A signal steam-whistle was provided; the inside of the caisson was coated with a cement wash and the outside repainted. A general overhauling of the main engines was made during the months of December and January and the engine room repainted.

#### KINGSTON GRAVING DOCK.

This dock is situated in the centre of the harbour at the foot of Union Street. It is built of stone laid in cement, has good yard accommodation, and can take in any vessel that passes through the Welland Canal.

The following is a description of the property, caisson, boilers, engines, &c.:

The dock is 280 feet long, from the inner face of the caisson to the foot of the stairs is 290 feet. This length can be increased by 13 feet, by placing the caisson on the apron line. The width of dock at floor level is 47 feet and at coping 79 feet. The depth is 20 feet 6 inches. The rudder well commences at 10 feet from the inner face of the invert and is 3 feet wide, 12 feet deep and 24 feet long. The keel blocks extend the whole length of the dock at 5 feet centres. There are 32 bilge blocks placed at 10 feet centres. The depth of water on the sill at low water is 16 feet, and at high water 18 feet.

The caisson is 59 feet in length on long face, 57 feet on short face, 13 feet wide by 22 deep. It is operated by a worm gear arrangement, in connection with the auxiliary engines hereinafter alluded to.

The large steam boilers (battery of 4) are all connected and are provided with controlling valves, so that one or more of them may be used at the same time. The length of shell is 14 feet, diameter 5 feet 6 inches, thickness of plates ¾-inch, 84, 3½ flues same length as shell. Pressure of steam 100 lbs. to square inch.

The small auxiliary boiler is of the drop flue type. The shell is 9 by 4 feet, plates ¾-inch thick, has 250 drop flues ¼ by 18 inches, with circulating tubes. This boiler saves from 50 to 75 per cent of the fuel required by one of the large boilers, to do the same amount of work.

The main engines, two in number, are of the vertical high pressure type. The cylinder being 18 by 18 inches. These engines operate the two main pumps.

The main pumps are of the centrifugal type, having each a 20-inch diameter discharge and jointly capable of discharging 30,000 gallons per minute, against a head of 33 feet.

The auxiliary engines are of the vertical high pressure type. The two cylinders are each, 12 inches by 12 inches. These engines operate the auxiliary pump and the caisson.

The fire pump was made by the Knowles Co., of Boston. The steam cylinder is 15 inches by 21 inches and the water cylinder, 10-inch by 21 inches. This pump can also be used to do the duty of the auxiliary centrifugal pump, should the latter be disabled.

## Department of Public Works.

The pony engine and pump has two steam cylinders, each 6 inches by 7 inches. The water cylinder is 4 inches by 7 inches. This pump is used for feeding the water supply to the boilers and for sprinkling purposes, and is capable of lifting 3,000 gallons per minute against a head of 32 feet.

During the fiscal year of 1892-93 several material improvements were made to the dock.

A vertical boiler, 4 feet in diameter by 9 feet in height, was purchased.

This boiler will pay for itself, it is claimed, in one year, as it will save 40 per cent of the coal consumed in keeping the dock free from water flowing through the arterial drains while it is un-watered.

The fire pump was removed from the upper to the lower floor of the engine room. A shed for the storage of coal the dimensions of which are 30 by 40 feet was built on the wharf south of the machinery building, also a wooden fence of the best description was built around the whole government property, for a length of 868 feet, with gates on Gore and Union streets.

No new work in connection with the dock was undertaken during the fiscal year ended the 30th June, 1895.

A full return of the boats docked during the year will be sent in by Mr. E. T. Smith, collector of revenue, of the department.

The steam derrick has been put in thorough repair and painted at a cost of \$216.23.

The stone work of the dock throughout has been pointed with Portland cement, at a cost of \$78.83.

The boiler house roof, has been put in a proper state of repair at an expenditure of \$152.07, while the woodwork of the engine house has been painted. Cost \$47.02.

### ESQUIMALT GRAVING DOCK.

This dock commenced by the Provincial Government of British Columbia, was assumed by the Dominion Government and completed and opened in July, 1887, when H.M.S. "Cormorant" was docked. It is situated in a small cove in Esquimalt Harbour, and the following is a description of the dock, engines, pumps and boilers:—

	Feet.	Inches.
Length of dock over keel blocks.....	430	
Width of inner invert.....	20	
do caisson chamber.....	15	10
Total length of dock .....	480	10
Width of dock at coping.....	90	
do do entrance.....	65	
do do floor of dock.....	41	1
Radius of invert.....	16	6
Depth of water on invert at low water.....	24	6
do do ordinary high water.....	26	6
Total depth of dock above invert.....	33	6
Height of invert above floor of dock.....	3	
do keel block.....	2	10
Length of do .....	4	
do caisson (inside facing) .....	67	
do do (outside facing reversible).....	71	
Width of caisson over teak meeting faces.....	15	8

2 condensing engines, cylinders 27 inches diameter, 36 inches stroke.

2 lifting pumps, cylinders 48 inches diameter, 60 inches stroke.

3 Cornish boilers, 6½ feet diameter and 14 feet in length.

1 high pressure auxiliary engine, cylinders 16 inches diameter, 20 inches stroke.

- 1 centrifugal drainage pump, 14 inches suction, 12 inches discharge.
- 1 return tubular boiler, 5 feet 3 inches diameter, and 14½ feet in length.
- 1 hauling engine for caisson, cylinder 12 inches diameter; 14 inches stroke.
- 1 centrifugal drainage pump, 6 inches suction: 5 inches discharge.
- 1 Edison No. 4 dynamo, 1,600 C.P. 16 lamps around dock.
- 1 engine for dynamo 8 inches diameter by 12 inches stroke.
- 1 iron moveable stop gate for caisson chamber.
- 25 iron bollards around dock.
- 1 wooden crane, 10 tons capacity.
- 8 hand capstans.
- 6 hydrants.
- 3 hose reels and 200 feet of canvas hose.
- 1 diving apparatus, complete.
- 1 lathe, 6 feet bed.
- 1 drilling machine.
- 1 set of taps and dies complete.
- 1 steam box for bending planks.
- 2 iron warping buoys.
- 2 dolphins to mark channel at entrance of dock.

This dock has not been in great demand during the past year, the receipts having only reached \$6,338.25 against \$10,850.00 received last year. The running expenses this year amount to \$10,409.81, \$432.28 more than the previous year. This is accounted for by the fact that during the latter year, there was no necessity to purchase fuel, there being sufficient on hand to last the year.

It is anticipated that the recent reduction of the dues will encourage the more frequent use of the dock.

During the year the whole of the caisson—both lower compartment, inside and outside—has been chipped, scraped and re-painted, and the hauling gear, sprocket wheels and counter-shafts taken off, repaired, painted and put together again. Also new iron crab winch for heaving ships upright, made out of old materials and placed on the high rocks.

New wooden steps, ladders and pier headfenders. New iron axles for timber trucks, firing tools, bolts, hinges, hasps and staples made for coal sheds and other buildings.

New set of brass set screws for large pump rods made, and valves repaired when required.

Small engine overhauled and new piston rings made, new drains and pipes put under small boiler, new floor put in dynamo room and a set of boat oars made.

Eighteen new dock trestles and a timber truck, for carrying heavy timber around dock, made.

Boilers cleaned out when required and painted twice during the year.

Dynamo engine overhauled, new bridge walls under boilers made and brick linings repaired.

Large engines overhauled and painted. Air pump rod and plunger repaired.

New screw bolts for holding down winches made. New set of shore chains and keel block caps made.

Pump wells and caisson chamber cleaned out. Shells and barnacles scraped off inverts, meeting faces and apron, and drains flushed out.

Centrifugal pump taken out, repaired and replaced. Four tide gauges made, new lathe tools, mandrils, special taps and drills made for above work.

New crucible tongs and grates for brass furnace, furnace doors and forges repaired.

Set of moulders' tools and moulding boxes made, patterns for castings, tables and stands for tide gauges, and new hatches for engine room floors made.



# Department of Public Works.

## SLIDES AND BOOMS.

In connection with the different systems of slides and booms, owned and operated by the Dominion Government on the Ottawa, St. Maurice and Saguenay Rivers, and in the Trent and Newcastle District, information relative thereto will be found in the appended reports of Mr. G. P. Brophy, Superintending Engineer of the Ottawa River Works; Mr. Thomas Berlinguet, Engineer in charge of the St. Maurice River Works; Mr. Thomas Breen, Engineer in charge of works on the Saguenay River; and Mr. R. B. Rogers, Superintending Engineer of the Trent and Newcastle District Works.

OTTAWA RIVER WORKS OFFICE,

OTTAWA, 15th August, 1895.

LOUIS COSTE, Esq.,  
Chief Engineer of Public Works,  
Ottawa.

SIR,—As requested by your communication No. 2478 of the 8th ultimo, I have the honour to submit the following report on the works under my charge on the Ottawa River and its tributaries, for the fiscal year ended 30th June last.

During the summer and autumn months of 1894, rather a low pitch of water prevailed in the various streams, so that the movement of late timber was considerably retarded. At the time of low water, an examination was made of the foundations of the river structures; and as soon as it was possible to do so the necessary repair and re-construction work was begun and continued after the season of navigation had closed and may be described as follows:—

### REPAIRS AT STATIONS ON THE OTTAWA RIVER (MAIN STREAM).

*Carillon Station.* At this place a portion of the guide-boom was repaired by replanking it and inserting new timbers and also by strengthening the boom fastenings and respiking portions of the side and floor planking of the slide.

*Hull or North Chaudière Station.* The works here were repaired at the outlet or lower slide by renewing a portion of the bottom and placing new timbers, planking and stone-filling; patching corners of entrance piers and attaching iron plates; planting an oak post in easterly side pier and furnishing additional stop logs. While at the entrance to the upper slide, the six ply boom, which had been damaged by an ice shove, was thoroughly overhauled by the insertion of new timbers and plank and the sheeting of the upper slide partially renewed.

*Ottawa or South Chaudière Station.* At this place the upper portions of the bulkheads of the 1st and 2nd slides was thoroughly repaired and the hoisting gear and crab attachments strengthened; the guide boom at the head of the 2nd slide having become strained and twisted, had to be replanked and stiffened by top bracing. New hardwood pickets for booms at head of 1st 2nd and 4th slides were provided and placed in position and the covering plank of the booms between the 3rd and 4th slides renewed.

At places where much worn by passing timber, the sides and bottoms of the slides and the apron fingers were re-inforced by the insertion of elm plank; and, as much difficulty was experienced last winter in adjusting chain fastenings, &c., owing to the sudden changes of the level of the water at the inlets due to the formation of anchor ice in the channels and bays between the Great and Little Chaudière Falls, a larger outlay than usual was necessary to provide labour for guarding against accidents and making good the damage caused by the action of the ice. Hardwood pickets were provided for booms, and ice and snow removed from the roofs of store-houses and sheds.

*Bridges at Ottawa and Hull and roadway or causeway between these cities.* The work of repairs and maintenance on the roadway consisted of cleaning the roadbed; placing a layer of broken stone where the surface had worn out; renewing sidewalk

and hand-rail between Buell, Hurdman & Co.'s track and Hull bridge, a distance of about 350 feet; renewing sidewalk and railing of Hull slide bridge; renewing longitudinal timbers, supporting same where decayed, and patching covering plant of roadway and at a later period of the year when it was considered that the further use of the slide bridge would be unsafe for the heavy traffic over it, the old structure was removed (with the exception of the renewed sidewalk) and a bridge, wider by 8 feet and with a raised grade at the northerly approach, built to replace the old one. The sidewalk and iron railing on the east side of the northerly approach of the *Union bridge* was extended about 30 feet; the pavement of the causeway towards Hull was continued by laying 340 square yards of granite blocks. At the Ottawa approach of the *Union bridge* an iron grating was placed over a trench cut transversely to the full width of the road, for the purpose of intercepting and carrying off the water from the grade above; while several iron grates were laid on the gutter holes at both ends of this bridge and the iron tension rods and braces and flooring plank repaired.

The covering plank of the line of iron bridges spanning the slide and hydraulic channels at south Chaudière station was repaired and the tension rods and braces were adjusted. At the *Maria street bridge* the roadway, approaches and footpaths were repaired. About 150 feet in length of the road covering of the *Sappers' bridge* was renewed by laying 3-inch plank and a new sidewalk laid on the south side. To prevent damage to the iron posts and railings by the snow ploughs in winter, movable guard planks or fenders were provided for both sides of the bridge at its approaches.

In this connection it may be stated that the causeway has now been laid with porphyry and granite blocks for a distance of about 315 feet, northerly from the *Union bridge* towards Hull, and from the southerly end of that structure there is now in use a permanent stone pavement, extending 125 feet, to meet the city of Ottawa's paved roadway. The thoroughfare between the place where the stone paving ends and the Hull bridge is altogether too narrow for the very great traffic it has to accommodate, I would therefore repeat the recommendation contained in a former report and urge that this portion of the roadway be widened and permanently paved as soon as a grant can be obtained for that purpose.

*Chats Station.* The glance pier on the north side of the canal leading to the slide had been damaged by cribs striking the outer face. Repairs were executed by inserting timbers, three sticks wide and tiers of three-inch elm plank alternately the timbers having been laid longitudinally and the plank cross-wise on top and all well spiked together. Additional stonefilling had to be done in the cribwork; the booms on the north side at head of canal and at the lower by wash on the same side had a renewal of decayed and worn out timbers and in the floor of the slide, at various places where defects were found, new three-inch elm planks were substituted for those that had become unserviceable.

*Chenauz Station.* Additional boom chains were provided for the works here and certain minor repairs carried out on the floats and gaps.

*Portage du Fort Station.* The upper timbers of the side pier at the foot of the slide, on the southerly side, were damaged and displaced at the time of high water, necessitating a renewal and relaying of same as well as a levelling up of the stonefilling; two new maple stop-logs had to be furnished for the governing bulkhead of slide and a renewal effected of the second length or stretch of guide boom at the head of slide on the southerly side which had been much damaged and worn, after many years' use.

*Mountain Station.* Some small repairs had to be attended to at this place; but the work was done by the slide master and his assistant; it consisted principally of driving home projecting spikes in the slide bottom, stopping leaks and adjusting the chains and fastening of booms.

*Calumet Station.* The repair work here consisted of the building of a temporary dam, 78 feet long, by an average height of 16 feet, to close off the water from the lower outlet basin of the third slide, preparatory to the carrying out of necessary repairs to the side dam and apron below the slide. In addition to the above work,

## Department of Public Works.

an examination was made of the planking of the slides, the head of spikes driven in; the boom covering plank renewed in places and a strengthening effected of the boom chains.

### REPAIRS ON TRIBUTARIES OF THE OTTAWA.

*Gatineau River.* The work done in connection with the improvements on this stream, was in excavating and removing bark and other rubbish from the bed of the creek leading from the pond to the sorting gaps, on the north side of the Ottawa River.

This channel had become so much obstructed at low water season by deposits of such debris, that logs could only be moved with great difficulty and expense. The trips of booms, sorting platforms, caps and pickets, etc., were repaired and the piers of the bridge over the canal strengthened.

*Madawaska River.* At the mouth of this stream, in the spring of 1893, ice shoves, during a heavy gale, wrecked some twenty-two of the boom support piers—several had to be rebuilt from the water's edge; others were partially taken down and had the damaged timbers removed and replaced by new ones; plank fenders spiked on the exposed sides of the piers; snubbing posts planted and the stone filling brought up to level. The glance pier below *Arnprior Slide* was repaired where damaged by the passing timber and logs; new timbers were put in and stone laid in the crib-work: the lower portion of the slide outlet, where it had been undermined was supported by new timbers and otherwise strengthened; while the sides of the slide at the bulkhead were covered with maple plank.

*At Flat Rapids* one dam on the north side of the river and two on the south side had their face planking, in places, renewed, and their stringers and finger pieces where damaged repaired; the foundation timbers were rock bolted and a quantity of stone added to the bottom of the crib.

*At Long Rapids* dam foundation timbers were replaced where they had been knocked out and the stone filling made up where required.

*At Sutherland's Shoal* the top of the glance pier was carried away by the spring floods and had to be replaced by timber and stone.

*At Little Rapids* the main dam 180 feet long by 15 feet average width by 10 feet high was much damaged by the action of high water in 1893 and 1894, to remedy this defect, stone filled cribwork was placed in the middle supported by buttress piers at the back; and to guard against the undermining of the foundations, a quantity of stone was deposited in the bed of the river against the upper or face side of the dam.

*At Barrett's Chute* the sheeting was taken off the dam on the north side of the river and the structure raised two feet; it was then sheeted anew; the length being 85 feet.

*At High Falls* a support pier 22 feet by 12 feet by 12 feet high was built behind the dam; the main boom repaired; the bulkhead piers faced up and some blocking up done at the foundation timbers of the slide near the foot. *At Duck Rapids* a flat dam 73 feet long and 7 feet high was built from an island to the south shore and at *Bailey's Chute* a flat dam 130 feet long, 6 feet high, with rock bolted foundations, was rebuilt on the northerly side of the river. *At Chain Rapids* the old dam from the bulkhead pier to the rock was cut down and rebuilt on the flat principle; its length being 145 feet and height 9 feet. Certain necessary repairs were also executed at the piers of the bulkhead at this station.

*Coulonge River.* At the entrance to the slide at High Falls the glance pier on the north side was extended a distance of 25 feet and on the south side 35 feet and carried up 14 feet, or to the same height as the bulkhead piers; the average width of piers is 5 feet and they were filled to the top with stone. The planking of the bottom and sides of slide (which is nearly 3,000 feet long) was examined and heads of spikes driven in.

On the 25th of April last a break occurred in the slide, when a section, about 60 feet in length, was completely knocked out. This accident, it is supposed, was due

to vibration caused by passing logs; and the necessary repairs involved the renewal of four high bents, 11 pairs of posts, sills, stringers, &c., for the distance above stated. In May, three minor breaks took place, two of which were caused by logs and timber bumping out some of the side posts of the slide; and the other by a fall of rock fragments detached from the steep banks and almost perpendicular bluffs skirting the slide on the left. These repairs were promptly executed and the drives passed without further interruption. A quantity of chain was procured for the booms at this place and the fastenings made secure.

*Black River.* The maintenance of the works at High Falls, near the mouth of this stream, required a supply of maple plank to withstand the friction of the logs at the steep pitch near the outlet of the slide. Other small repairs were attended to by way of adjusting boom fastenings, and bulkhead appliances for the regulation of the flow of water in the slide.

*Petewawa River.* The work done under this head was as follows:—Replacing a number of worn planks in the *Second Chute Slide* and substituting new sills and posts for those damaged by logs and roots of trees during the high water season of 1894; refilling with stone, two sections of the main governing dam on the north side of the second chute; cutting and splicing old boom timbers; overhauling boom chains and stanching with brush and gravel, crevices in dams, which had caused leakage during the running season. At *Crooked Chute Station*, repairing sides and bottom of slide and timbers of bulkhead; levelling up stone-filling in first and second piers of retaining dam; cutting ends of old booms and reboring for new coupling chains and gravelling in front of the main dam.

#### RE-CONSTRUCTION.

The work done under this head was on the Petewawa River and may be described as follows:—Rebuilding and filling with stone the upper portions of two piers, and bracing snubbing posts; drawing out of the river, reboring, fitting and supplying with new coupling chains, 80 lengths of timber in main boom at mouth; blasting of two reefs of rock and a number of boulders from the channel immediately below the outlet of the *First Chute Slide*; the removal of an old pier to secure a proper run into the new slide entrance; building of two piers to support guide-booms at head, the one on north side being 23 x 23 feet at base and 18 by 18 feet at top x 20 feet high, the other 16 x 16 x 13 feet high; two guide booms for entrance of *Second Chute Slide*, reconstructing main governing dam on the south side of the head of the *Third Chute Slide*: this dam is 109 feet long by an average height of 14 feet; rebuilding outside bulk head pier, 100 x 10 x 6 feet at third chute and reconstructing, at the same station, a pier dam 40 feet x 10 feet x 6 feet, blasting and removing rocky reefs and boulders from the timber channels at *Half mile Rapid* and *Bois Dur Stations* and providing timber and chains for the works there; reconstructing three dams to open up a new channel on the north side of *Lake Traverse Slide* and blasting rock and boulder obstructions in this channel, the object in view being, to provide a passage for timber and logs at low water season, which can only be run through the single stick slide, 1,400 feet long, with great difficulty and expense, when the water falls—and as it is most likely that, in future, a large portion of the drives will use this channel, a considerable saving in the maintenance of the works there, will be affected.

#### PURCHASE OF SERVICE GROUND.

Parliament, at its session in 1894, having voted \$750 for the purpose of procuring a strip of land and certain riparian privileges adjacent to the *First Chute* of the Petewawa; and which were required as service ground, &c., for the proper working of the government slide there, a survey of the property was made and a legal transfer obtained.

The works on all the streams were ready and opened in due time for the business of 1895. The floods in the rivers and creeks of the Ottawa Valley were not as high

## Department of Public Works.

last spring as they had been in the years immediately preceding; consequently no damage of any consequence was done by water pressure or ice shoves on the opening of navigation; but as the season advanced a scarcity of water was experienced on some of the feeders and this had the effect of delaying the drives and making the movement of all descriptions of timber more expensive, than if there had been a free and continuous run of water in the spring and early summer months on the upper streams.

The following statement, which is copied from a return furnished by the collector of slide dues in your department, shows the quantities of the various descriptions of timber that passed the government works, together with the revenue accrued as tolls, for the fiscal year covered by this report:—

Square timber.....	32,783	pieces.
Saw-logs.....	3,658,317	“
Boom and dimension timber.....	105,533	“
Cedars.....	16,768	“
Railway ties.....	160,317	“
Fence posts.....	24,695	“
Shingle logs.....	6,978	“
Tamarack logs.....	8	“
	4,005,399	“

also 7,533½ cords pulpwood and 100 cords shingle wood.

The revenue accrued was \$51,973.07.

In respectfully submitting the above,

I have the honour to be, sir,

Your obedient servant,

GEO. P. BROPHY,  
*Supt. Engr. O. R. Works.*

LOUIS COSTE, Esq.,  
Chief Engineer of Public Works,  
Ottawa.

THREE RIVERS, 12th August 1895.

SIR,—I have the honour to submit the following report on the works under my charge, on the St. Maurice River, for the fiscal year ended 30th June last. ~~CONFIDENTIAL~~

The river commenced to rise on the 7th March, and reached its maximum height on the 26th April, 1894, corresponding to 17 feet 7 tenths above low water, and being 1 foot 7 tenths higher than the maximum of 1893.

After the 9th of May the water commenced to recede rapidly, and reached its minimum height on the 7th September, corresponding to 3 feet 4 tenths on gauge at Grandes Piles, and being 0.6 feet higher than the lowest water in 1893.

The fluctuation of the water level has been great during the season, varying from 3 to 7 feet, giving a high pitch of water for the descent of the logs.

During the working season in 1894, for the descent of the logs, from the 16th April to 2nd October, the water level rose during 58 days, and receded during 97 days and was at a stand still during 13 days.

Out of the 168 days, we had 71 days when the river gave a good pitch of water for the floating of the logs.

The average height of water for the working season was 5.8 feet above low water summer level.

After the working season, the slides, piers and booms were examined, and in the fall the necessary works of repairs and reconstruction were executed, which may be described as follows:—

*At Grandes Piles Station* :—The work performed at this station consists of repairs made to piers (Nos. 4, 5, 6 and 7), also 1,022 feet of single boom, were renewed at Les Plaines, below Grandes Piles falls. Also the construction of the eastern section of the telephone line from Shawenegan Falls to Pointe Magdeleine at Grandes Piles.

*At Grand'Mère Station* :—Slight repairs were made to the main boom. The works at this station are now in good condition, and every facility is provided for the running of logs.

*At Shawenegan Station* :—The bottom and sides of the slide were partially repaired by replacing the worn-out timber and planking with new material, the apron faced with hardwood, and the projecting spikes in the bottom and sides of the slides were countersunk.

*At Iles des Hêtres*, seven anchor piers (Nos. 68, 69, 70, 71, 72, 74, and 75) and two jam piers (Nos. 73 and 76) were built, with 950 feet of three-ply booms, to retain logs in the channels formed by the islands at that place; to increase the capacity of the retaining booms at this station, and also to protect the slide from a too great accumulation of logs at its head. This is a more economical place in which to retain logs than at Shawenegan Bay, for three reasons:—

1. Because the fluctuation of water is much less; when the water raises 22 feet at the Bay, it rises only 12 feet at the Hêtres.

2. Because the cost of this work is much less at the Hêtres than at Shawenegan Bay—as the work erected at the bay to retain 100,000 logs cost over \$60,000 while that at the Hêtres can retain over 200,000 logs and the work has cost only \$3,000. The proportion is the same with regard to the repairs.

3. This work being (two miles) above the slide, prevents a too great accumulation of logs at the slide, where breaks often happened.

*At Three Rivers Station* :—Slight repairs were made to the booms, 877 feet of four ply-booms were strengthened by adding timber on each side along the whole length of the boom, and mooring posts were placed where necessary.

The following statement, furnished by the collector of slide and boom dues in your department, shows the quantities of the various descriptions of timber that passed the government works, for the fiscal year covered by this report:—

*Statement of the number of pieces of saw-logs, &c., that passed through the government slide and works on the St. Maurice River, during the fiscal year ended 30th June, 1895.*

Saw-logs .....	565,534 pieces.
Logs for pulp wood.....	213,318 “
Round timber .....	876 “
Railway ties.....	164 “
<b>Total.....</b>	<b>779,892 “</b>

The amount of expenditure for staff, maintenance, repairs and improvements for fiscal year ended 30th June, 1895, was:—

Staff and maintenance expenses.....	\$ 6,512 83
Repairs and improvements:—	
Grandes Piles Station.....	205 46
Shawenegan do .....	3,382 43
Three Rivers do .....	413 45
<b>Total expenditure for 1894-95.....</b>	<b>\$10,514 17</b>

I have the honour to be, sir,

Your obedient servant,

F. X. THOS. BERLINGUET,

*Resident Engineer.*

LOUIS COSTE, Esq.,

Chief Engineer, Dept. Public Works, Ottawa.

# Department of Public Works.

TRENT AND NEWCASTLE DISTRICT,  
SUPERINTENDING ENGINEER'S OFFICE,  
PETERBOROUGH, 16th August, 1895.

LOUIS COSTE, Esq.,  
Chief Engineer, Department Public Works,  
Ottawa.

SIR,—I have the honour to submit the annual report of the works under my charge for the fiscal year ending 30th June, 1895.

The works under my supervision in this district are constructed for two purposes; namely, those constructed to benefit navigation and those constructed to facilitate the descent of timber. The former are under the control of the Department of Railways and Canals and are part of the Trent Canal, the latter are under the control of the Department of Public Works.

The works are situated along the River Trent and its upper waters between the Bay of Quinté on the south, and Balsam Lake (a point about 15 miles from Lake Simcoe) on the north, a distance of about 170 miles.

There is a watershed of over 2,000 square miles which is bounded on the north by the Muskoka and Madawaska Rivers. The regulation of the water from this large watershed has become a very important matter to the many industries situated along the route and to navigation.

The spring freshet only reached an average height. The water during the fall of 1894 was good up to the middle of October when the water fell rapidly on account of the dry season.

Some firms did not observe as strictly as they should the regulation regarding the bringing down their logs in small bags. This will have to be adhered to if navigation is to be maintained, as those large bags of logs cannot possibly be put through the contracted parts of the channels without stopping navigation. Besides with proper appliances they can be brought down as cheaply if not more so in small blocks than in large ones.

Gilmour & Co., of Trenton, now bring their logs from the Muskoka waters by means of ladders and sluices over the height of land into these waters. This, has, I understand, been successfully carried out, but owing to the low water late in the fall they were unable to get their logs all the way to Trenton.

The works are now in fair condition and most of the larger works that are required are now built, so that in future, unless other larger works are put in for the benefit of the lumbermen, the expenditure for maintenance and renewals will be smaller than in the past.

The following works of repairs were executed at the different stations :—

## *Buckhorn.*

A pier, 90 feet in length and 8 feet wide, was built from the end of the slide for the purpose of preventing the water and logs spreading on the shoal below. It was necessary to have this slide in condition for running as in high water it was impossible to take the logs across the front of the dam, owing to the strong current. The slide and sluice was also repaired and put in first-class condition. The works here are now in first-class condition.

## *Fenelon Falls.*

Two extra piers in Cameron's Lake were built at the upper entrance to the glance booms of the slide in order to form a "snub" for the blocks of logs as they rolled in.

*Burleigh Falls.*

The flat dam which was unfinished, and which has proven such a great boom to the lumbermen, was completed.

*Katchawannoe Lake.*

Minor repairs were executed to the booms. The cut at "Henderson's Narrows" was dredged out to a depth of 8 feet and 75 feet wide and 120 feet in length. This allows such a current to pass through that it takes out the great eddy below, about which the lumbermen made such great complaint.

*Little Lake.*

The piers from the water line up were rebuilt and put in first-class condition and the booms overhauled.

*Heeley's Falls.*

The slide at this station was handed over some years ago to the lumbermen, on the condition that if the tolls were taken off they would keep it in repair. They allowed it to get so out of repair that it was dangerous to go on it and it was liable to go out at any time. The slide was thoroughly rebuilt and put in first-class shape.

Minor repairs were also made to the booms and piers at Hastings, Katchawannoe Lake and Bobcaygeon.

I have the honour to be, sir,

Your obedient servant,

RICHD. B. ROGERS,  
*Supt. Engineer.*

STATEMENT showing the number of Saw-logs, &c., &c., which passed through the different Slides on the River Trent and Newcastle District Works for the Fiscal Year ended 30th June, 1895.

Station.	Pine Saw-logs.	Boom Timber.	Railway Ties.	Fence Posts.	Long Cedars.	Dimension Timber.	Shingle Butts.	Spruce Logs.	Other Saw-logs.
Fenelon Falls.....	103,189	6,389	22,727	27,075	783	.....	.....	832	29,136
Buckhorn.....	197,363	3,343	68,369	26,045	12,425	746	2,600	926	20,095
Burleigh.....	197,363	3,343	68,369	26,045	12,425	746	2,600	926	20,095
Young's Point.....	197,363	3,343	68,369	26,045	12,425	746	2,600	926	20,095
Lakefield.....	197,363	3,343	68,369	26,045	12,425	746	2,600	926	20,095
Hastings.....	188,400	1,200	.....	.....	.....	.....	.....	.....	871
Heeley's Falls.....	188,400	1,200	.....	.....	.....	.....	.....	.....	871
Chisholm's Rapids....	188,400	1,200	.....	.....	.....	.....	.....	.....	871

RICHARD B. ROGERS,  
*Supt. Engineer.*



# Department of Public Works.

QUEBEC, 27th July 1895.

L. COSTE, Esq.,  
Chief Engineer, Department Public Works,  
Ottawa.

SIR,—I beg leave to report that during the fiscal year 1894-95 sundry repairs were made to the Saguenay Slide, besides which 300 feet in length of the structure, including trestle-work supporting the same were pulled down, partly rebuilt with new material and framed ready to receive planking and sheathing, materials for which are on hand.

The spring freshets caused the water of Lake St. Jean to rise some two feet higher than last year and in order to protect the slide, the slide-master had to raise dam No. 7 and bulkhead some four feet to prevent driftwood, etc., from passing over.

There are up to date some 800 pieces of timber in the booms, but none passed through the slide in 1894-95.

I remain,

Your obedient servant,

THOS. BREEN.

## BRIDGES.

During 1894-95 repairs were made to the undermentioned bridges, viz :— Grand River Bridge, at York, Ontario ; Ottawa City Bridges, at Ottawa, Ontario ; Des Joachims Bridge, River Ottawa ; Portage du Fort Bridge, River Ottawa ; Belly River Bridge, at Lethbridge, N.W.T. ; Old Man's River Bridge, at Macleod, N.W.T. ; and bridges were built at Pond Creek, flowing into the Ottawa River, Quebec ; Cartier, River St. Louis, Quebec ; River St. Louis Feeder, Quebec.

### GRAND RIVER BRIDGE.

The Grand River Bridge at York connects the eastern and western sides of the Grand River at York, Haldimand County.

During the fiscal year 1894-95 the sum of \$300 was expended on repairs to the flooring of the bridge and in strengthening the hand rail of the approach, etc., 7,500 B.M. of 3-inch pine plank was renewed, 37 cords of stone were placed in position and the handrails strengthened.

### DES JOACHIMS BRIDGE.

The village of Des Joachims is situated in the county of Pontiac, Quebec, on the Ottawa River, 128 miles above Ottawa.

The interprovincial bridge which spans the river at this point is 737 feet long and 16 feet wide, apart from a stone embankment or approach 70 feet long on the Quebec shore.

A sum of \$2,500 was appropriated for repairs to this bridge, but it was found impossible to put it in a safe condition for that amount. The piers require but little repairs, but the superstructure is so far decayed as to render all repairs useless.

### PORTAGE DU FORT BRIDGE.

The village of Portage du Fort is situated in the county of Pontiac, Que., on the Ottawa River, 60 miles above Ottawa.

The interprovincial bridge which crosses the main channel of the Ottawa River at this point, is 996 feet long over all and 20 feet wide. Its main span was found to be in a dangerous condition owing specially to the advanced state of decay of the

piers on which it rests. These piers were sheathed and generally strengthened, and the span itself was guyed up by means of six  $1\frac{1}{2}$ -inch crucible cast steel wire ropes, three in each truss. It is now in as safe a condition as the advanced state of decay of the foundations of the piers will allow.

The village bridge, which is 225 feet long apart from two stone and earth approaches each 80 feet long and 20 feet wide, was completely refloored, and is now in a good state of repair, the total expenditure amounting to \$1,897.45.

#### BELLY RIVER BRIDGE.

The town of Lethbridge is in the district of Alberta, north from the international boundary line, 50 miles, in Section No. 31, Township 8, Range 21, west of the 4th Initial Meridian. The town is connected with the main line of the Canadian Pacific Railway at Dunmore, by the Lethbridge branch, 109 miles in length.

The bridge spans the Belly River in the north-west  $\frac{1}{4}$  Section No. 1, Township 9, Range 22, about one mile and a half from the town.

The bridge is a Howe truss, four spans of 150 feet each, with three piers; two abutments and trestle approaches with a total length over all of 1,000 feet.

The structure being in need of repair, orders were given to have the necessary work executed. It commenced on the 4th April, 1895, and was completed in June, before the close of the fiscal year, the expenditure amounting to \$2,502.56.

The spans were well tightened up throughout and brought to the proper camber. The floor laid down is of first-class quality, and the rip-rap placed around the piers was not affected by the freshet. The approaches were also put in good order. The bridge, however, required painting.

#### OLD MAN'S RIVER BRIDGE.

The Old Man's River rises in Crow's Nest Lake near the summit of the Rockies, about 50 miles west of the 5th Initial Meridian, and is joined by the north and south branches about 10 miles west, and 2 miles east of the 5th Initial Meridian respectively, emptying in the Belly River, 20 miles east of the town of Macleod, after a course of about 200 miles in a general direction.

The town of Macleod is in the district of Alberta, Township 9, Range 26 west of the 4th Initial Meridian, section No. 12; 50 miles from the international boundary line; 30 miles west of the town of Lethbridge, and 105 miles south-east of Calgary. The Macleod branch of the Canadian Pacific Railway connects with the main line at Calgary.

The bridge crosses the Old Man's River one mile and three-quarters west of Macleod, in the centre of Section 10, Township 9, Range 26.

The bridge consists of two spans of 150 feet each; one pier; two abutments; earth and trestle approach on the north side and an embankment approach on the south side.

This bridge was constructed under contract with Messrs. John Heney and Henry Smith of Ottawa, between May and October, 1891.

Since the bridge was completed there has been expended in repairs up to the 30th June, 1894, a total sum of \$2,364.63, giving an average of \$788.00 per annum.

The freshet in June, 1894—the highest water as yet recorded,—washed away the rip-rap placed around the pier during the winter, and scoured out the bed of the river about the pier at the upstream end, to a depth of 10 feet, or nearly to the bottom of the protection piles which surround the pier. During this freshet, the water rose to within 3 feet of the bottom chord, which shows an average depth of 7 feet and an area in cross section of 2,700 feet. With this area some idea of the velocity of the current may be conceived from the fact, that this river has an average fall of 54 feet per mile.

Instructions to have the pier rip-rapped again, and the bridge put in thorough repair were issued and work was begun in February and finished 10th April, 1895, at a cost of \$851.86.

## Department of Public Works.

In tightening the truss-rods of the two spans so as to give the proper camber, it was found necessary to put blocks between the chord and chord plates. In order to do this the rods had to be let down from the top as far as possible, causing a great deal of extra work. All the bolts in both spans were tightened as well as in the trestle approach. A portion of the railing along the north approach was renewed, it having been carried away piecemeal by persons unknown and the embankment approaches were levelled and put in proper shape.

Where the scouring occurred around the pier, stone was put in, and the pier rip-rapped to a proper height with a slope of about 2 to 1. This rip-rap was not effected in the least by the high water of this year (1895.)

There is a great deal of traffic over the bridge and not the slightest attention is paid to the notices relative to walking over it. In consequence the structure is outrageously abused, so much so, that more or less repairing will be required annually. The bridge is not painted.

### POND CREEK BRIDGE.

Pond Creek is the outlet to Lemay's Lake, and flows into the Ottawa River, half a mile above the mouth of the Gatineau River.

On the 24th of November, 1894, a contract was entered into for the building of a bridge 235 feet long over all and 20 feet wide over the creek, for a bulk sum of \$2,490. During the progress of the work it was found necessary to drive some of the piles in the approaches to a greater depth than had been anticipated and specified in the contract. It was also found necessary to place two double rows of longitudinals under the floor joists, which the contractors agreed to do and performed for an extra sum of \$650. Sundry alterations and additions were also made, the cost of which aggregated \$285.40.

The bridge was completed and opened to traffic on the 1st of May last. It was the last link in the now continuous highway from Gatineau Point to Hull and Ottawa.

### RIVER ST. LOUIS BRIDGES.

#### *Bridges at Cartier, Que., and over the St. Louis River Feeder.*

The village of Cartier is situated in the County of Beauharnois, Que., on the River St. Louis, 6 miles from Valleyfield.

On the 3rd of June last the construction of a bridge 40 feet clear span, 64 feet long over all and 16.4 feet wide between centres of trusses, was commenced over the St. Louis River, to unite the Ormstown and Larocque Roads. At the same time a small triangular truss 30 feet clear span and 13 feet wide was being built over the St. Louis River feeder at a point about 2½ miles below Lake St. Francis.

These structures were not completed on the 30th June, when \$1,193.01 had been expended.

### SURVEYS AND EXAMINATIONS.

During the year surveys and examinations were made at the undermentioned localities:—

#### NOVA SCOTIA.

Amaguadees Pond .....	Cape Breton.
Boularderie, Ross Ferry .....	Victoria.
Broad Cove Coal Mines .....	Inverness.
Chapel Cove .....	Richmond.
Coal Mine Point .....	Inverness.
Cow Bay .....	Cape Breton.

NOVA SCOTIA—*Concluded.*

Cribbin's Point.....	Antigonish.
D'Escousse.....	Richmond.
Georgeville .....	Antigonish.
Iona .....	Victoria.
L'Ardoise.....	Richmond.
Lismore.....	Pictou.
Little Bras d'Or.....	Cape Breton.
Louisbourg.....	do
Margaree .....	Inverness.
Moydart.....	Antigonish.
McNair's Cove.....	do
New Haven.....	Victoria.
Pictou Island.....	Pictou.
Port Richmond.....	Richmond.
Seaside .....	Inverness.
South Ingonish.....	Victoria.
Tony Piver.....	Pictou.
Tracadie.....	Antigonish.

## NEW BRUNSWICK.

Anderson's Hollow.....	Albert.
Bear Island.....	York.
Buctouche.....	Kent.
Burnt Church.....	Northumberland.
Burton.....	Sudbury.
Campbellton.....	Restigouche.
Cape Tormentine.....	Westmoreland.
Caraquet.....	Gloucester.
Clifton.....	do
Cocagne.....	Kent.
Dalhousie.....	Restigouche.
Fort Dufferin.....	St. John.
Fredericton.....	York.
Gardner's Creek.....	St. John.
Grand Anse.....	Gloucester.
Grand Falls.....	Victoria.
Herring Cove.....	Albert.
Hillsborough.....	do
Hopewell Cape.....	do
Kars.....	King's.
Milkish.....	do
Negro Point.....	St. John.
Neguac.....	Northumberland.
Oromocto.....	Sudbury.
Pointe du Chêne.....	Westmoreland.
Quaco.....	St. John.
Richibucto.....	Kent.
River Restigouche.....	Restigouche.
River St. John.....	do
Rocher Bay.....	Albert.
Salmon River.....	do
Shamfer's Landing.....	King's.
Shippegan.....	Gloucester.
Somerville.....	King's.
Springhill.....	York.

## Department of Public Works.

### NEW BRUNSWICK—*Concluded.*

St. Francis.....	Madawaska.
Stony Creek. ....	Albert.
Tobique.....	Victoria.
Tynemouth Creek.....	St. John.
William's Landing.....	King's.

### PRINCE EDWARD ISLAND.

Boughton Island.....	King's.
Brae Harbour.....	Prince.
Campbell's Cove... ..	King's.
China Point.....	Queen's.
Halliday's.....	do
Higgin's Shore.....	Prince.
Lambert's.....	King's.
Miminigash.....	Prince.
Murray Harbour.....	King's.
North Cardigan.....	do
Rustico.....	Queen's.
St. Mary's Bay.....	King's.
St. Peter's Bay.....	do
Souris.....	do
Tignish.....	Prince.

### QUEBEC.

Berthier (en bas).....	Berthier.
Chateauguay River. ....	Chateauguay.
Coteau du Lac.....	Soulanges.
Gatineau Point.....	Ottawa.
Laprairie.....	Laprairie.
Pointe du Lac.....	St. Maurice County.
Rivière des Prairies.....	Laval.
River St. Louis Bridges.....	Beauharnois.
River St. Maurice.....	St. Maurice.
Ste. Anne de la Pocatière . . . . .	Kamouraska.
Ste. Famille d'Orléans.....	Montmorency.
St. Laurent d'Orléans.....	do
Touladie River.....	Temiscouata.

### ONTARIO.

Bayfield . . . . .	Huron Co.
Goderich.....	do
Hamilton.....	Wentworth.
Honora, Manitoulin Isd.....	Algoma.
Kincardine.....	Bruce.
Morpeth.....	Kent.
Nation River.....	Dundas.
North Bay.....	do
Oakville.....	Halton.
Owen Sound.....	Grey.
Port Hope.....	Durham.
Port Stanley.....	Elgin.
Rainy River.....	Algoma.
Reed's Point.....	do
River Kaministiquia.....	do

ONTARIO—*Concluded.*

Sable River... ..Bruce.  
 Saugeen River... ..do  
 Sault Ste. Marie... ..Algoma.  
 South Bay, Pelee Island... ..Essex.  
 Toronto Harbour... ..York.

INTERPROVINCIAL.

Bryson Bridge... ..Ottawa River.  
 Des Joachims Bridge... ..do  
 Ottawa and Hull Bridges... ..

MANITOBA.

Hnausa... ..Lake Winnipeg.  
 Lake St. Francis... ..

NORTH-WEST TERRITORIES.

Moose Jaw Creek Valley... ..  
 Medicine Hat... ..

BRITISH COLUMBIA.

Fraser River... ..

During the year 998 official papers were referred by the secretary of the department to this office for report or action. The number of letters received from resident engineers and others amounted to about 9,000 and 4,603 letters were sent out.

I have the honour to be, sir,

Your obedient servant,

LOUIS COSTE.

*Chief Engineer.*

E. F. E. ROY, Esq.,  
 Secretary, Department of Public Works,  
 Ottawa.

Department of Public Works.

APPENDIX No. 4

REPORT

OF THE

COLLECTOR OF REVENUE

DEPARTMENT OF PUBLIC WORKS

1894-95





# Department of Public Works.

## APPENDIX No. 4.

### REPORT OF THE COLLECTOR OF REVENUE.

DEPARTMENT OF PUBLIC WORKS,  
COLLECTION OF REVENUE,  
OTTAWA, 8th October, 1895.

E. F. E. Roy, Esq.,  
Secretary, Department of Public Works,  
Ottawa.

SIR,—In submitting the following report, which I have the honour of presenting for the information of the Honourable the Minister of Public Works, I have to state that by letter of 13th March last, I was informed by the Chief Engineer that the Honourable the Minister had decided to entrust me with the collection of the revenues derived from graving docks, locks, slide and booms, &c.; in fact the collection of revenues of all kinds pertaining to this department.

I immediately took steps to acquaint myself with the details of the services required of me, and I drafted the instructions to dockmasters and lockmasters which are appended hereto and served each one with a copy, after they had been approved and countersigned by the Chief Engineer.

By these instructions it will appear that every precaution that could be devised was adopted, not only to secure the regular and faithful accounting by the outside officials for all revenue coming into their hands; but also, for the prompt payment into bank of all moneys which reach my office; so that strict conformity with these instructions will result to the entire satisfaction of the department.

With the exception of Esquimalt Graving Dock, I have examined the books and accounts of the different officers under me; and have much satisfaction in reporting that they have faithfully accounted for all the revenues collected by them.

With your permission, I will refer to the different sources of revenue seriatim beginning with that from

#### SLIDES AND BOOMS.

##### *Ottawa District.*

The revenue accrued, including interest, during the past financial year was \$52,111.20 or \$12,149.81 less than for 1893-94. The number of saw-logs which passed through the works was 449,208 pieces more than during 1893-94. See statement No. 1; and as anticipated in my report of last year, the quantity of square timber was less than ever before, or only 32,783 pieces as compared with 46,954 in 1893-94, and 66,390 pieces in 1892-93.

The large falling off in the revenue was also anticipated to the extent of \$13,000 in consequence of the reduction of the tolls on the Petewawa, Madawaska and Gatineau works—the actual reduction was however only \$12,149.81.

Of the revenue of 1894-5, I have much pleasure in stating that all has been collected, at this date.

Of the dues accrued since 1st July, 1889, there remains, at this date uncollected \$6,903.05 Chaudière boomage, reported to the Public Accounts Committee last session. \$28.42 in the hands of a solicitor and \$379.80 against which Mr. J. R. Booth has an acknowledged account against this department, of which payment was refused by the Auditor General, because certain amounts stand against Mr. Booth, for Chaudière Boomage and Coulonge Slidage, which have been reported to the Public Accounts Committee with a view to having them written off.

These items make a total of \$7,311.27 details of which will be found in statement No. 3 herewith.

Of the dues accrued prior to 1st July, 1889, the officers of the department having reported that the claim of Messrs. Perley & Pattee for remission of Coulonge slidge of 1880 was untenable, this firm paid the amount, \$419.10, in September last, which leaves the amount still uncollected of these accounts, \$56,805.61, see statements, Nos. 4 and 5 for details, which I may mention were also laid before the Public Accounts Committee.

In short, the accounts for the Ottawa district were as follows:—

Dues accrued during the year 1894-5 including interest	\$52,111	20
Of which there was collected during the		
year ... ..	\$51,185	69
Of which there was overcharges written off.	187	22
Of which was collected since 1st July 1895.	738	29
	<u>\$52,111</u>	<u>20</u>

The gross collections were as follows:—

Dues of 1894-95 .....	\$51,047	56
do 1893-94.....	729	83
do 1890-91.....	396	00
do interest.....	138	13
	<u>\$52,311</u>	<u>52</u>

The amounts outstanding uncollected on 30 June last were as follows:—

Dues accrued prior to 1st July 1889, when collection was transferred to this department, including dues at Quebec.....	\$57,224	75
Accrued during year ending 30th June 1890.....	6,903	05
do do 1891 .....	28	42
do do 1894.....	379	80
do do 1895.....	738	29
	<u>\$65,274</u>	<u>31</u>
Of which there has been collected.....	1,157	39
Leaving outstanding at this date.....	<u>\$64,116</u>	<u>92</u>

Herewith are the statements above referred to viz. :—

No. 1. Statement of the number of pieces of square timber, saw-logs, &c., which passed through the Ottawa District Works year ending 30th June, 1895.

No. 2. Statement of dues accrued from each of the slides and works, during the year ending 30th June, 1895.

No. 3. Statement of dues accrued since 1st July, 1889, outstanding on 30th September, 1895.

No. 4. Statement of dues accrued prior to 1st July, 1889, outstanding on 30th September, 1895.

No. 5. Statement of slide dues outstanding at Quebec, 30th June, 1889, uncollected 30th September, 1895.

#### *St. Maurice District.*

The revenue for 1894-95 amounts to \$14,306.53, exclusive of \$8.54 interest, all of which was collected during the fiscal year. Although the number of pieces that passed through the works was larger than in 1893-94, yet the revenue was \$75.29 less than in that year. This is accounted for by the much larger proportion of pulp logs or logs under 10 inches in diameter which were brought down in consequence of a very large reduction in the provincial dues, but for which a very large part of these small logs would have been left as formerly to rot in the woods and make food for fires, besides yielding no revenue whatever to either federal or provincial treasury.

## Department of Public Works.

This year again the business is vastly increased, the number of pieces passing the works being almost a million and a quarter, nearly one-third of which will be pulp logs; nevertheless, I expect the revenue will considerably exceed \$20,000, or be the largest on record.

Of the arrears outstanding when I took charge of this district, there was still uncollected on 30th June last \$14,481.49, being \$1,440.90 less than on same date previous year, which sum was collected through the Department of Justice in August and September, 1894.

Statement No. 6 of details of outstanding dues is herewith; it was also laid before the Public Accounts Committee last session.

### *Saguenay District.*

During the past fiscal year there was no revenue accrued from these works.

In May last, I went to Chicoutimi and from a thorough examination of their culler's books found that we had overcharged Messrs. Price Bros. & Co. \$913.98. The department approving of my report recommending this sum to be written off, Messrs. Price Bros. & Co. paid the sum of \$9,148.74 within the financial year and closed the account.

I have much pleasure in stating that there is nothing now due from these works.

### *Newcastle District.*

The accompanying statement, No. 7, shows \$6,058.34 yet outstanding on account of these works.

This statement was submitted to the Public Accounts Committee and \$3,521.19 of it recommended to be written off.

With regard to the balance of \$2,537.15 the legality of the charges being questioned, it has been submitted to the Department of Justice for decision.

To summarize—The actual collections from slides and booms during the financial year were as follows:—

From the Ottawa district.....	\$52,311 52
do St. Maurice district.....	15,755 97
do Saguenay district.....	9,148 74
Total collections.....	\$77,216 23

The output of square timber this winter, in the Ottawa district will be about the same as last year or perhaps a little less.

The cut of saw-logs may not be quite as large as that of last winter, which was unusually favourable for lumbering, but owing to the very low water in the smaller streams, several large lots are hung up, which will tend to reduce the quantity to be cut this year.

On the St. Maurice the quantity will be about the same as last year.

On the Saguenay no logs will be made that would come through our works.

## GRAVING DOCKS.

### *Lévis.*

The revenue for the past year was \$13,995.19, being \$684.25 more than the preceding year. For full details see statement No. 8 herewith. It will be seen that compared with 1893-4, the dock was occupied for 114 days as against 129 days in the latter year, but the tonnage of the vessels docked was 14,835 tons in 1894-5, as against 5,117 ton in 1893-4.

*Kingston Graving Dock.*

The total revenue from this work for the financial year was \$2,878.23, of which \$427.90 should be refunded being the difference between the charges collected under the old tariff and the rates established from 15th April, 1895, by Order in Council of 15th June, 1895, which reductions were as follows:—

Vessels 100 to 500 tons 20 cts., changed to 200 to 500 tons 10 cts., all tonnage over 500 tons 10 cts., changed to 5 cts. per ton. Lay days 7 cts. per ton, changed to 3½ cts per ton.

These changes were made because it was represented that the original rates were too high and drove away business and that a reduction would cause the dock to yield a larger revenue, it would be hardly fair to venture an opinion yet, nevertheless, I cannot help submitting that, if the dock was occupied for the whole season, by vessels of small tonnage, as is most frequently the case, it would not give nearly enough revenue to meet the expense of maintenance.

It will be seen from detailed statement No. 9, herewith, that the revenue was as above stated \$2,878.23, or \$4,574.78 less than last year at the same rates or \$5,002.68 less than 1893-94, when the overpayments above referred to are deducted.

The tonnage of vessels docked was 10,493½ tons as against 19,896½ tons in 1893-4.

*Esquimalt Graving Dock.*

The total revenue collected for 1894-95 was \$6,320.25 exclusive of \$18 collected for old rope yarn sold to paper mill. The revenue for the previous year was \$10,786.70 or \$4,466.45 more than 1894-95. See statement No. 10 herewith.

The tonnage of vessels docked was 21,573 tons in 1894-95, and 10,949 tons in 1893-94. In this connection it should be borne in mind that, of all the time the dock was occupied from 28th July, to 1st December, 1894, with the exception of two days, it was used by vessels belonging to the British Government, on which no dockage dues are charged, only working expenses being collected for them.

It having being represented to the department that the charges under the regulations were so high as to be almost prohibitory, an Order in Council was passed 23rd March last, reducing the charges as follows:—

## ON VESSELS.

1,000 tons, \$400 per day, and 10 cents per ton each subsequent day, reduced to \$300 and 5 cents.

1,000 to 2,000, \$500 per day, 8 cents per ton each subsequent day, reduced to \$350 and 4½ cents.

Above 2,000 tons, \$600 per day, and 6 cents per ton each subsequent day, reduced to \$400 and 4 cents for 2,000, and 2 cents for each ton over 2,000.

## LOCKS.

*Rivière du Lièvre Lock.*

The revenue from this source for the past fiscal year was \$404.30 or \$128.29 than less 1893-94.

I have been prevented by press of business from compiling the statistics in relation to this work, which I would have desired to present with this report.

*River Yamaska.*

From this work the revenue was \$357.78 or \$135.29 more than for the year 1893-94.

As the figures given in the last departmental report are for the season of navigation of 1893, those below refer to the like period of 1894.

The first vessel passed through the lock on the 21st of April and the last on the 18th November, 1894.

## Department of Public Works

The number and description of the vessels which have passed through the lock during the season 1894, were as follows :

Steam vessels.....	168
Sailing.....	66
Pleasure boats.....	58
Total.....	292

To recapitulate—the total collections from all the works in my charge were as follows :—

From Slides and booms.....	\$77,216 23
“ Graving docks.....	23,193 67
“ Locks.....	1,436 37
Total.....	\$101,846 27

In conclusion I have to thank all the officials with whom my new duties have brought me in contact, for the uniform courtesy extended and valuable assistance so cordially rendered to me in familiarizing myself with the work.

I have the honour to be respectfully, sir,  
Your very obedient servant,

ED. T. SMITH,  
*Collector Public Works Revenue.*

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 17th April, 1895.

### *Instructions to Dockmasters.*

1. All correspondence, returns, &c., relating to revenue are to be addressed to the Collector of Revenue, Department of Public Works, Ottawa.
2. In addition to the entry book, a cash book must also be kept showing date of entry, name of party paying charges, number of voucher and amount received.
3. All collections to be mailed, in registered letter, to the collector within the first three days of the month following that for which returns are made.
4. Particular care is requested to be taken in making out the triplicate vouchers which must correspond in every particular with the entry book and must all bear the signature of the owners or agents of vessels. The original and duplicate vouchers must accompany each remittance.
5. All moneys received should be deposited in bank to the credit of the Honourable the Receiver General on the day received and a bank receipt in duplicate with draft attached obtained therefor. Should a payment be received after bank hours, the bank receipt should bear date of the next legal day following the date of entry in cash book.
6. If within the first fifteen days of the month an acknowledgment of the receipt at Ottawa of returns is not had, the dockmaster should write the Chief Engineer, Department of Public Works to that effect, so that should a letter go astray, no unnecessary time may be lost in endeavouring to recover it.

Approved  
LOUIS COSTE,  
*Chief Engineer.*

ED. T. SMITH,  
*Collector of Revenue.*

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 17th April, 1895.

*Instructions to Lockmasters.*

1. All correspondence, returns, &c., relating to revenue are to be addressed to the Collector of Revenue, Department of Public Works, Ottawa.

2. Ship reports received during each week, to be mailed to me on Saturday night.

3. All collections to be remitted by registered letter on the first day of the month, unless it happens to fall on Sunday, than in that case on the second day of the month.

4. A cash book shall be kept—showing date of payment—name of vessel—number of ship report and amount of tolls thereon.

5. Particular care is to be taken in filling out triplicate report and having it signed precisely same as original and duplicate.

6. A bank certificate of deposit to the credit of the Receiver General, will be mailed to lockmaster for the amount remitted by him, should such receipt fail to reach him by the 10th of the month following that for which remittance has been made, the lockmaster must write to the Chief Engineer, Department of Public Works, stating that such receipt has not reached him, so that should any letters go astray inquiries may be instituted as soon as possible.

7. The bank certificates must be filed and kept in regular order in the lockmaster's office.

Approved

LOUIS COSTE,  
*Chief Engineer.*

ED. T. SMITH,  
*Collector of Revenue.*

## Department of Public Works.

No. 1.—STATEMENT of the number of pieces of square timber, saw logs, &c., that passed the Government slides and works on the River Ottawa and its tributaries, during the fiscal year ended 30th June, 1895.

Square timber.....	32,783	pieces.
Saw logs.....	3,658,317	do
Boom and dimension timber.....	105,533	do
Cedars.....	16,768	do
Railway ties.....	160,317	do
Fence posts.....	24,695	do
Shingle logs.....	6,978	do
Tamarack logs.....	8	do
Total.....	4,005,399	do
also 7,533½ cords pulp wood.		
do 100 do shingle wood.		

The revenue accrued on the above was \$51,973 07.

EDWD. T. SMITH,  
*Collector of Slide and Boom Dues.*

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 30th September, 1895.

No. 2.—STATEMENT showing the dues accrued from the River Ottawa and its tributaries, during the fiscal year ended 30th June, 1895.

Name of River.	—	Total.
	\$ cts.	\$ cts.
River Ottawa.....	6,513 01	
Chenau boom.....	9,224 52	15,737 53
River Petewawa.....		12,251 62
do Madawaska.....		9,797 76
do Coulonge.....		6,517 73
do Dumoine.....		980 58
Black River.....		2,106 39
River Gatineau.....		4,581 46
Total.....		51,973 07

EDWD. T. SMITH,  
*Collector of Slide and Boom Dues.*

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 30th June, 1895.

No. 3.—STATEMENT of Slide and Boom Dues accrued from the Ottawa River Works since 1st July, 1889, outstanding on 30th September, 1895.

NAME.	Years to which Dues belong.	Chaudière Boomage in Suspense.	Ordinary Dues.	Total outstanding.	REMARKS.
		\$ cts.	\$ cts.	\$ cts.	
J. R. Booth	1889-90.	2,561 69		2,561 69	Chaudière boomage reported to Council and referred to Treasury Board. Should be written of.
The Bronsons & Weston Lumber Co	1889-90.	2,056 96		2,056 96	
Perley & Pattee	1889-90.	1,203 26		1,203 26	
Wm. Mason & Sons.	1889-90.	167 66		167 66	Legal action taken to collect this. Retained by Mr. Booth in settlement of an account due him which the Auditor General refuses to pay, as Mr. Booth appeared to be in arrears in this and Statement No. 1.
Pierce & Co.	1889-90.	913 48		913 48	
Alex. Fraser, acct. of Thos. Stephen.	1890-91.		28 42	28 42	
J. R. Booth	1892-93.		379 80	379 80	
		6,903 05	408 22	7,311 27	

EDWARD T. SMITH,  
Collector of Slide and Boom Dues.

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 30th September, 1895.



# Department of Public Works

**No. 4.—STATEMENT of Sludge and Boomage from the Ottawa Slides and Works accrued prior to 1st July, 1889, 1889, outstanding 30th June, 1895, and remaining uncollected on 30th September, 1895.**

By Whom Due.	Bad and Doubtful	Chaudière Boomage in Suspense.	Other Slide and Boom Dues disputed.	Total Dues outstanding on 30th Sept., 1895.	Year to which Dues belong.	Remarks.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
John & Wm. McLean.....	53 14			53 14	1873	Insolvent.
James Yull.....	9 29			9 29	1876	Overcharge.
John Rowan.....	342 50			342 50	1872 and 1873	Insolvent.
Leineux & Charette.....	21 30			21 30	1873	do
Tailion & Lapiere.....	148 10			148 10	1873 and 1874	do
Mosgrove & McHarry.....	261 42			261 42	1873 and 1874	do
W. C. Wells.....	600 90			600 90	1873 and 1874	do
Dufresne & McHenry.....	528 80			528 80	1874 and 1875	do
Walton Smith.....	171 46			171 46	1874 and 1875	do
A. H. Baldwin.....	3,507 92			3,507 92	1871 to 1874	do
Hon. James Skead.....	9,807 65			9,807 65	1861, 1862, 1864, 1869, 1875 to 1878	do
Batson & Carrier.....	5,558 70			5,558 70	1875 to 1877	do
A. F. A. Knight.....	546 30			546 30	1878	do
James Walker.....	11 25			11 25	1877	do
R. Campbell & Son.....	1,558 50			1,558 50	1879 to 1881	do
James G. Bryson.....	73 50			73 50	1886	do
Costello Brothers.....	90 62			90 62	1882	do
N. E. Cormier.....	428 34			428 34	1888	do
J. & B. Grier.....	76 84			76 84	1883	do
R. & W. Conroy.....	95 42			95 42	1882 and 1883	do
A. & P. White.....	101 00			101 00	1881	do
J. R. Booth.....		9,871 93	398 88	10,270 81	1881 to 1888	do
Ferley & Pattee.....		8,889 85		8,889 85	1880 to 1884	do
The Bronsons & Weston Lumber Co.....		8,180 79		8,180 79	1881 to 1885	do
Pierce & Co.....		462 18		462 18	1888	do
G. A. Grier & Co.....		1,060 59		1,060 59	1886 and 1887	do
Estate late Levi Young.....		1,461 20		1,461 20	1881 to 1885	do
Wm. Mason.....		413 85		413 85	1881 to 1888	do
Gilmour & Co.....		406 27		406 27	1884	do
John Rochester.....		258 88		258 88	1881 to 1883	do

Overcharge.  
do reported in return S—38 for March, 1886.  
do \$398.88 counterclaim for damage by the breaking of Coulonge boom.

Chaudière Boomage.—These parties claim that they have maintained these works wholly at their own expense since 1881.

No. 4.—STATEMENT of Slidage and Boomage from the Ottawa Slides and Works accrued prior to 1st July, 1889, outstanding 30th June, 1895, and remaining uncollected on 30th September, 1895—*Concluded.*

By Whom Due.	Bad and Doubtful Debts.	Chaudière Boomage in Suspense.	Other Slide and Boom Dues disputed.	Total Dues outstanding on 30th Sep., 1895.	Year to which Dues belong.	Remarks.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
J. & G. Bryson.....	23,992 95	4 33	252 20	252 20	1886	Counterclaim for damages by breaking of Coulouge boom. Overcharge.
B. Caldwell & Son.....				4 33	1887	
		31,009 87	651 08	55,653 90		

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 30th September, 1895.

EDWARD T. SMITH,  
*Collector of Slide and Boom Dues.*

## Department of Public Works.

**No. 5.—STATEMENT of Outstanding Slide dues, Ottawa District, bonds for which were sent to Quebec for collection.**

Name.	From 1860.	From 1861.	Total.
	\$ cts.	\$ cts.	\$ cts.
Hon. James Skead.....	245 00	210 00	455 00
James Mair.....	.....	696 75	696 75
	245 00	906 75	1,151 75

These amounts were uncollected, as the parties claimed damages for loss caused by the Madawaska boom breaking away in 1860.

A decision on their claim was not arrived at till 2nd August, 1869, on the 5th idem, Messrs. Skead and Mair were notified that the department could not recognize their claim.

To the best of my knowledge, this decision was never communicated to the collector of slide dues, consequently their accounts remained in abeyance. Since then, both parties died, and I believe both were insolvent at the time of their death.

**EDWARD T. SMITH,**  
*Collector of Slide and Boom Dues.*

**DEPARTMENT OF PUBLIC WORKS,**  
**OTTAWA, 30th September, 1895.**

### ST. MAURICE DISTRICT.

**No. 6.—STATEMENT of Slide and Boom Dues, from St. Maurice Slide and Works, outstanding on the 30th June, 1895, and remaining uncollected on the 30th September, 1895.**

Name.	Year to which dues belong.	Amount.	Total.	Remarks.
		\$ cts.	\$ cts.	
George Baptist. Son & Co..	1878	469 95		Have counter claim for damages to logs caused by the booms not being stretched early enough in the spring of 1878 to prevent the logs going over the chutes.
do do..	1879	2,110 62		
do do..	1880	1,696 18		
do do..	1881	293 69		
do do..	1882	165 80		
do do..	1884	118 50		
do do..	1888	4 28	4,859 02	
Ross, Ritchie & Co.....	1878	3,072 84		These claims were submitted to special commissioner Mr. McDougall, afterwards judge, who after hearing the evidence on both sides, recommended that the claims of the parties should be allowed.
do .....	1883	2,173 68		
do .....	1884	28 96		
do .....	1886	1 62		
do .....	1887	4 38	5,281 48	
Alexander Baptist.....	1879	.....	2,116 96	
Wm. Ritchie & Co.....	1888	779 24		Of this amount \$754.20 is claimed to be overcharge.
do .....	1889	332 11	1,111 35	
Ritchie Brothers.....	1886	413 43		This amount is composed of overcharges in 1886 and 1887 of \$842.76 and overpayment in 1884 of \$205.38. Insolvent.
do .....	1887	634 71	1,048 14	
G. B. Hall.....	1890	.....	49 34	Claims that this balance is an overcharge. Would cost more to collect than it is worth.
T. E. Normand.....	1890	.....	14 28	
Trefflé Biron.....	1891	.....	0 92	
			14,481 49	

**EDWARD T. SMITH,**  
*Collector Slide and Boom Dues,*

**DEPARTMENT OF PUBLIC WORKS,**  
**OTTAWA, 30th September, 1895.**

## NEWCASTLE DISTRICT.

No. 7.—STATEMENT of slide and boom dues accrued from the Newcastle and Trent River Works outstanding on the 30th June, 1895, and remaining uncollected on the 30th September, 1895.

Name.	Year to which dues belong.	Amount.	Remarks.
		\$ cts.	
T. G. Hazlett . . . . .	1881, 1882, 1884 and 1889 . . .	885 25	
J. M. Irwin . . . . .	1882, 1883, 1885 and 1888 . . .	698 45	
D. Ulliott . . . . .	1881 and 1887 . . . . .	547 68	
George Hilliard . . . . .	1877 and 1882, 1883 and 1886	354 15	
Greene & Ellis . . . . .	1880 and 1883, 1885, 1888		
	and 1889 . . . . .	157 01	
Irwin & Boyd . . . . .	1881 . . . . .	59 79	Insolvent.
Thomson & McArthur . . . . .	1880 . . . . .	52 78	do
A. W. Parkins . . . . .	1884, 1885, 1888, 1890 and		
	1891 . . . . .	65 92	
The Dickson Estate, T. G. Haz-			
lett, agent . . . . .	1883 . . . . .	137 50	
Jabez Thurston . . . . .	1882 . . . . .	12 50	Insolvent.
Alfred McDonald . . . . .	1888 . . . . .	40 80	
John Parkins . . . . .	1889 . . . . .	13 00	
McDougall & Ludgate . . . . .	1879 . . . . .	65 07	Insolvent.
Bigelow & Trounce . . . . .	1882 and 1885 . . . . .	216 21	do
R. & J. Strickland . . . . .	1882, 1883, 1885 and 1887 . . .	215 08	do
Gilmour & Co. . . . .	1893 . . . . .	690 58	Disputed; referred to the Depart-
			ment of Justice.
The Rathbun Co. . . . .	1893 . . . . .	1,846 57	do do
		€,058 34	

EDWARD T. SMITH,  
*Collector of Slides and Boom Dues.*

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 30th September, 1895.

## Department of Public Works.

### THE DRY DOCK AT LÉVIS.

**STATEMENT of Dues and other charges collected during the Year ending 30th June, 1895.**

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges	Total.
		From	To			
		1894.		\$ cts.	\$ cts.	\$ cts.
SS. Chollerton.....	2,650	June 17	July 7	2,260 00	.....	2,260 00
SS. Amyranthia....	3,933	July 11	Sept. 1	6,890 32	.....	6,890 32
Govt. Str. Constance.....	184	Sept. 7	do 13	355 20	.....	355 20
Dredge No. 12.....	120	Nov. 12	Nov. 15	318 00	.....	318 00
do 11.....	120	do 18	do 19	306 00	6 00	312 00
SS. Hestia.....	3,790	do 20	do 30	1,658 00	6 00	1,664 00
		1895.				
Turret Bay.....	2,211	May 27	May 31	776 88	.....	776 88
Turret Crown.....	1,827	June 9	June 22	1,418 79	.....	1,418 79
				13,983 19	12 00	13,995 19

### THE DRY DOCK AT KINGSTON.

**STATEMENT of Dues and other charges collected during the Year ending 30th June 1895.**

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges	Total.
		From	To			
		1894.		\$ cts.	\$ cts.	\$ cts.
Str. Jessie Bain.....	44 37	Aug. 7	Aug. 7	20 00	.....	20 00
Tug Reginald.....	186 26	do 9	do 10	37 25	5 00	42 25
Tug Thompson.....	185 5	do 22	do 23	37 10	15 50	52 60
Barge John Gaskin.....	487	Sept. 7	Sept. 8	97 40	.....	97 40
Str. Glengarry.....	438	do 14	do 15	87 60	5 00	92 60
do.....		do 17	do 17	.....	10 00	10 00
Str. Orion.....	590 99	Sept. 26	do 29	191 84	10 00	201 84
Str. Cibola.....	961 47	do 29	Oct. 2	280 76	30 50	311 26
Tug Reginald.....	186 26	Oct. 10	do 11	37 25	5 00	42 25
Str. Chicora.....	930 50	do 15	do 19	208 13	24 00	232 13
Tug D. D. Calvin.....	749 53	Nov. 2	Nov. 3	124 95	.....	124 95
Tug Walker.....	138 58	do 20	do 22	47 72	.....	47 72
		1895.				
Str. Glengarry.....	438	April 13	April 16	50 66	.....	50 66
Tug Hall, Barge Duluth.....	366	do 17	do 21	150 06	5 00	155 06
Str. North King.....	872 95	do 22	do 23	174 59	.....	174 59
Str. Campana.....	1,285	May 1	May 14	62 01	32 00	661 01
Tug Walker.....	138 58	do 15	do 16	27 72	5 00	32 72
Tug McNaughton.....	137 19	do 18	do 18	27 44	.....	27 44
Tug Coaster.....		do 24	do 25	.....	3 00	3 00
Barge Wheat Bin.....	320	do 30	do 30	64 00	.....	64 00
do Cornwall.....	585 96	do 30	do 30	149 62	.....	149 62
do McCarthy.....	254	June 3	June 4	50 80	.....	50 80
Str. Empire State.....	379 74	do 10	do 12	102 53	.....	102 53
Str. Saguin.....	818 07	do 15	do 15	131 80	.....	131 80
	10,493½			2,728 23	150 00	2,878 23

## THE DRY DOCK AT ESQUIMALT.

STATEMENT of Dues and other charges collected during the Year ending 30th June, 1895.

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges	Total.
		From	To			
		1894.		\$ cts.	\$ cts.	\$ cts.
H.M.S. "Hyacinthe" .....	1,420	July 18	July 28	Working ex. ....		428 50
H.M.S. "Royal Arthur" .....	7,700	Aug. 2	Aug. 10	do .....		720 01
H.M.S. "Satellite" .....	1,420	Sept. 11	Sept. 20	do .....		439 71
Ship "Lanristan" .....	2,245	Oct. 5	Oct. 7	735 00	3 00	738 00
H.M.S. "Pheasant" .....	755	Nov. 13	Dec. 1	Working ex. ....		767 43
Str. "Costa Rica" .....	1,893	Dec. 10	do 18	1,620 00	21 60	1,641 60
Str. "Lorne" .....				Water .....		2
		1895.				
Str. "Quadra" .....	573	April 16	April 20	580 00		580 00
Str. "Mogul" .....				Water .....		1 20
Str. "Solveig" .....	3,380	May 6	May 8	508 00	10 20	518 20
Ship "Hawaiian Isles" .....	2,097	do 10	do 11	482 00	1 20	483 20
						6,320 25

EDWARD T. SMITH,  
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 8th October, 1895.

Department of Public Works.

APPENDIX No. 5

---

LIST

OF SOME OF THE

ACTS OF PARLIAMENT PASSED AT THE SESSION OF 1895

HAVING REFERENCE TO THE

DEPARTMENT OF PUBLIC WORKS

OR WORKS UNDER ITS CHARGE





# Department of Public Works.

## APPENDIX No. 5.

**LIST of some of the Public Acts of the Parliament of Canada, passed at the Fifth Session of the Seventh Parliament, closed by prorogation on the 22nd day of July, 1895, and having reference to the Public Works Department or works under its charge. (58-59 Victoria.)**

Subject.	Full Title of the Statute.	Chapter.	Page in statute book.
Sums granted to Her Majesty for the financial year ending 30th June, 1896, and the purposes for which they are granted.	An Act for granting to Her Majesty certain sums of money required for defraying certain expenses of the public service, for the financial year ending the 30th June, 1896, and for other purposes relating to the public service.	2	17
Respecting the Civil Service Act	An Act to amend the Civil Service Act. . . . .	14	65
For the amendments of the Civil Service Act.	An Act further to amend the Civil Service Act . . . . .	15	67
As to the sale or leasing of public works not required for public purposes.	An Act further to amend the Public Works Act. . . . .	36	125
Construction and repairs of buildings and other works in the penitentiaries to be under the control of the Minister of Public Works.	An Act to amend the Acts respecting Penitentiaries. . . . .	42	141

N. B.—By an Order in Council passed on the 27th June, 1894, rules and regulations have been adopted for the management, maintenance, &c., of the Government Timber Slides and other works on the Ottawa River and tributaries, see page xc. of 58-59 Victoria (1895).

J. A. CHASSÉ.

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 25th November, 1895.



# Department of Public Works.

## APPENDIX No. 6.



## STATEMENTS

SHOWING

- 1st.—CONTRACTS LET BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA, FROM THE 30<sup>TH</sup> JUNE, 1894, TO THE 30<sup>TH</sup> JUNE, 1895.
- 2nd.—PROPERTY PURCHASED OR SOLD BY THE DEPARTMENT OF PUBLIC WORKS, DURING THE FISCAL YEAR ENDED 30<sup>TH</sup> JUNE, 1895.
- 3rd.—PROPERTY LEASED TO AND BY THE DEPARTMENT OF PUBLIC WORKS, DURING THE FISCAL YEAR ENDED 30<sup>TH</sup> JUNE, 1895.



# Department of Public Works.

## APPENDIX No. 6.

OTTAWA, 25th November, 1895.

SIR,—I have the honour to inclose the following statements, which are required for insertion in the annual report 1894-95, namely :

No. 1.—Statement of contracts let by this department during the fiscal year ended 30th June last.

No. 2.—Statement of property purchased and sold by this department during the same period.

No. 3.—Statement of property leased to and by this department also during the same period.

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

J. A. CHASSÉ.

E. F. E. ROY, Esq.,  
Secretary of the Department of Public Works of Canada,  
Ottawa.

No. 1.—CONTRACTS let by the Department of Public Works of Canada, from the 30th June, 1894, to the 30th June, 1895.

Works.	Names of Contractors.	Date of Contract.	Amount.
<b>PUBLIC BUILDINGS.</b>			\$ cts.
<i>Government House, Parliament and Departmental Buildings.</i>			
Parliament and Departmental Buildings—Supply of coal .....	J. W. McRae .....	July 17, 1894	22,154 93
Parliament and Departmental Buildings—Removal of snow .....	Wm. Moore .....	Nov. 23, 1894	465 00
Parliament and Departmental Buildings—Supply of ice .....	L. O. Joly .....	Feb. 9, 1895	p. block 03½
Parliament Building—3 tubular boilers .....	P. J. Powers .....	Sept. 20, 1894	1,605 00
Parliament Grounds—Sir John A. Macdonald's monument stone foundations .....	J. Matthews .....	May 6, 1895	900 00
Rideau Hall—Erection of dairy .....	Hugh Gillmore .....	Nov. 28, 1894	1,785 00
do Government House—Hot water heating apparatus .....	David Ouimet .....	Sept. 21, 1894	4,200 00
do do Electrical appliances .....	Robert Anderson .....	Oct. 24, 1894	Sched. rates.
do do Removal of snow .....	W. J. Sims .....	Nov. 23, 1894	337 00
do do Supply of ice .....	L. O. Joly .....	Feb. 9, 1895	p. block 04½
<i>Nova Scotia.</i>			
Amherst, post office building—Supply of coal .....	The Cumberland Ry. & Coal Co .....	Nov. 12, 1894	195 98
Annapolis do do .....	The Canada Coal & Ry Co .....	do 12, 1894	159 64
Antigonish do do .....	James Kenna .....	Aug. 17, 1894	108 00
Arichat, public buildings do do .....	do .....	do 17, 1894	264 60
Baddeck, post office do do .....	Burchell Bros. .....	do 23, 1894	90
Dartmouth do do .....	The Intercolonial Coal Mining Co. ....	do 20, 1894	95

## No. 1.—CONTRACTS let by the Department of Public Works, &amp;c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
			\$ cts.
<b>PUBLIC BUILDINGS—Continued.</b>			
<i>Nova Scotia—Concluded.</i>			
Halifax, public buildings—Supply of coal . . . . .	Fred. I. Lordly . . . . .	Aug. 23, 1894	562 04
do Asst. Receiver General's Office—Supply of coal	S. Cunard & Co. . . . .	do 22, 1894	159 35
Lunenburg, post office—Supply of coal . . . . .	Burchell Bros. . . . .	Aug. 23, 1894	162 50
do do Fittings . . . . .	The Oxford Furniture Co. . . . .	Nov. 13, 1894	1,800 00
do Public building—Fittings . . . . .	do do . . . . .	Jan. 23, 1895	350 00
New Glasgow, post office—Supply of coal . . . . .	The Acadia Coal Co. . . . .	Aug. 17, 1894	129 02
North Sydney do do . . . . .	James Desmond . . . . .	do 17, 1894	147 50
Pictou, erection of a post office . . . . .	Rhodes, Curry & Co. . . . .	do 8, 1894	10,275 00
do public buildings—Supply of coal . . . . .	James Kenna . . . . .	do 17, 1894	108 35
Sydney, post office do do . . . . .	C. F. Routledge . . . . .	do 20, 1894	200 00
Truro do do . . . . .	The Cumberland Ry. & Coal Co . . . . .	Nov. 12, 1894	64 58
Windsor do do . . . . .	Fred. W. Dimock . . . . .	Aug. 17, 1894	157 50
Yarmouth do do . . . . .	The Cumberland Ry. & Coal Co . . . . .	Nov. 12, 1894	200 00
<i>Prince Edward Island.</i>			
Charlottetown, Dominion building—Supply of coal . . . . .	Chas. Lyons . . . . .	Aug. 18, 1894	464 28
Montague, post office—Supply of coal . . . . .	George Wightman . . . . .	do 17, 1894	42 30
Summerside do do . . . . .	James Kenna . . . . .	do 17, 1894	40 00
do do do . . . . .	Charles Lyons . . . . .	do 18, 1894	220 29
<i>New Brunswick.</i>			
Bathurst, post office—Supply of coal . . . . .	Chs. Powell . . . . .	Sept. 3, 1894	351 09
Carleton do do . . . . .	R. P. & W. F. Starr . . . . .	Aug. 21, 1894	43 42
Chatham do do . . . . .	R. R. Call . . . . .	do 20, 1894	361 48
do do Fittings . . . . .	The Oxford Furniture Co. . . . .	April 4, 1895	2,500 00
Dalhousie do Supply of coal . . . . .	Charles Powell . . . . .	Sept. 3, 1894	200 19
Fredericton do do . . . . .	P. Farrell . . . . .	Aug. 16, 1894	271 09
Moncton do do . . . . .	The Canadian Coal & Ry Co . . . . .	Nov. 12, 1894	208 26
New Castle do do . . . . .	R. R. Call . . . . .	Aug. 20, 1894	360 90
Portland do do . . . . .	R. P. & W. F. Starr . . . . .	do 21, 1894	30 82
St. John do do . . . . .	Magee Bros. . . . .	do 17, 1894	481 30
do Public buildings do . . . . .	R. P. & W. F. Starr . . . . .	do 21, 1894	1,855 01
do custom-house—Reconstruction of asphalt sidewalks . . . . .	Richard Magee . . . . .	June 18, 1895	722 00
St. Stephens, post office—Supply of coal . . . . .	A. F. Teed . . . . .	Aug. 20, 1894	146 90
Sussex do do . . . . .	R. P. & W. F. Starr . . . . .	do 21, 1894	170 66
Woodstock do do . . . . .	W. F. Dibblee & Son . . . . .	do 14, 1894	241 50
<i>Quebec.</i>			
Aylmer, post office—Supply of coal . . . . .	T. G. Brigham . . . . .	Aug. 24, 1894	163 41
Coaticook do do . . . . .	B. J. Smith . . . . .	do 27, 1894	225 75
Fraserville do do . . . . .	Nap. Dion . . . . .	do 24, 1894	296 00
Hull do do . . . . .	J. G. Butterworth & Co . . . . .	do 24, 1894	134 48
do do do . . . . .	T. G. Brigham . . . . .	do 24, 1894	62 00
Joliette do do . . . . .	J. O. Labrecque, Cousineau & Co. . . . .	do 28, 1894	24 03
Lachine do do . . . . .	T. Garipey . . . . .	do 27, 1894	87 72
Laprairie do do . . . . .	Charlebois & Co. . . . .	do 20, 1894	144 08
Montreal, Public buildings do . . . . .	Masson & Asselin . . . . .	do 29, 1894	3,360 05
Quebec, Citadel do . . . . .	Geo. W. Webster & Co . . . . .	do 7, 1894	249 89
do Public buildings do . . . . .	Madden & Ellis . . . . .	do 7, 1894	2,193 97
do Marine agency do . . . . .	do do . . . . .	Nov. 16, 1894	267 50
Quebec, post office—Alterations and additions to heating apparatus . . . . .	Wm. Ford . . . . .	Sept. 22, 1894	1,790 00
Rimouski—Erection of a post office building . . . . .	C. G. Beaulieu . . . . .	May 14, 1895	6,980 00

## Department of Public Works.

### No. 1.—CONTRACTS let by the Department of Public Works, &c—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
			\$    cts.
<b>PUBLIC BUILDINGS—Continued.</b>			
<i>Quebec—Concluded.</i>			
St. Henri, post office—Supply of coal.....	Evans Bros.....	Aug. 28, 1894	202 63
St. Hyacinthe do do.....	Magloire Benoit .....	" 14, 1894	181 32
do public building—Erection of stone fence and laying sidewalk.....	Paquet & Godbout.....	Jan. 15, 1895	1,550 00
St. Jérôme, post office—Supply of coal.....	J. O. Labrecque & Cousineau & Co.....	Aug. 28, 1894	357 94
St. Johns do do.....	Simard & Godin.....	" 15, 1894	173 25
St. Lin do alterations and repairs.....	O. Pelletier.....	June 12, 1895	350 00
Sherbrooke do supply of coal.....	Lucke & Mitchell.....	Aug. 15, 1894	269 00
Sorel do do.....	H. C. Charland & Co.....	" 14, 1894	121 80
Three Rivers, public buildings—Supply of coal.....	Zéphirin Marchand.....	" 30, 1894	571 64
do custom-house—Galvanized iron roofing.....	V. Charbonneau .....	Oct. 30, 1894	14 50 p. s.
<i>Ontario.</i>			
Almonte, post office—Supply of coal.....	Wm. McArthur.....	Aug. 20, 1894	160 00
Amherstburg do do.....	Mullin, Gattfield Coal Co.....	" 15, 1894	155 25
Barrie do do.....	J. G. Scott.....	" 18, 1894	250 00
Belleville do do.....	Thos. Stewart.....	" 15, 1894	360 00
Berlin do do.....	Frank Frank.....	" 16, 1894	164 36
Brampton do do.....	Peaker & Son.....	" 14, 1894	165 00
Brantford do do.....	The Huffman, Gibson Coal Co.....	" 15, 1894	276 30
Brockville do do.....	Geo. E. Shields.....	" 17, 1894	287 50
Carleton Place do do.....	Alexander Steele.....	" 20, 1894	104 00
Chatham do do.....	The Huffman, Gibson Coal Co.....	" 15, 1894	137 46
Clifton do do.....	Histrop & Thomas.....	" 15, 1894	247 05
Cobourg do do.....	Hargraft & Co.....	" 16, 1894	190 62
Cornwall do do.....	Flock Bros.....	" 18, 1894	250 00
Galt do do.....	James McQueen.....	" 17, 1894	151 90
Gananoque public building do do.....	W. J. Gibson.....	" 17, 1894	137 20
Goderich post office do do.....	Wm. Lee.....	" 20, 1894	176 03
Guelph do do.....	Frank Frank.....	" 16, 1894	166 54
Hamilton do do.....	Thomas Myles & Son.....	" 13, 1894	784 90
Kingston public building do do.....	Breck & Booth.....	" 15, 1894	364 91
Lindsay post office do do.....	The Rathbun Co.....	" 16, 1894	119 56
London public buildings do do.....	Hunt Bros.....	" 17, 1894	1,027 85
Napanee post office do do.....	J. R. Dafee.....	" 23, 1894	172 50
Orangeville do do.....	James Morrison.....	Sept. 8, 1894	94 64
Orillia do do.....	R. J. Sanderson.....	Aug. 23, 1894	194 07
Ottawa, experimental farm building—Supply of coal.....	T. G. Brigham.....	" 24, 1894	754 55
do National Art Gallery and Fisheries Exhibit Building—Covering sloping roofs.....	Douglass Bros.....	Nov. 7, 1894	267 00
do Langevin Block, Post Office, Geological and Fisheries Museums, Printing Bureau, Cartier Square—Removal of snow.....	W. H. Cuddie.....	" 27, 1894	400 00
Pembroke, post office—Supply of coal.....	Dunlop & Co.....	Aug. 25, 1894	97 03
Peterborough, public buildings do do.....	The Rathbun Co.....	" 16, 1894	321 75
Petrolia, post office do do.....	The Huffman, Gibson Coal Co.....	" 15, 1894	178 15
Port Hope, post office—Supply of coal.....	Brown & Henning.....	Aug. 15, 1894	220 00
Prescott, public buildings do do.....	Isaac W. Plumb.....	do 22, 1894	262 50
St. Catharines, post office do do.....	Eli Gadsby.....	do 20, 1894	250 45
St. Thomas do do.....	Ellison & Lewis.....	do 25, 1894	312 00
Smith's Falls, post office—Erection of a hot water heating apparatus.....	McKinley & Northwood.....	Dec. 6, 1894	637 00
Smith's Falls, post office—Fittings.....	Robert Cameron.....	April 4, 1895	1,665 00
do public building—Furniture.....	do.....	June 27, 1895	308 00
Stratford, post office—Supply of coal.....	Thos. Myles & Son.....	Aug. 13, 1894	362 46
do do Addition, repairs and fittings.....	John E. Askwith.....	Oct. 5, 1894	10,090 00
Strathroy do Supply of coal.....	Fife, Herd & Co.....	Aug. 27, 1894	110 00

## No. 1.—CONTRACTS let by the Department of Public Works, &amp;c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
<b>PUBLIC BUILDINGS—Continued.</b>			\$ cts.
<i>Ontario—Continued.</i>			
Toronto, public buildings—Supply of coal.....	P. Burns & Co.....	do 21, 1894	2,184 91
do examining warehouse—New roof.....	W. T. Stewart.....	Sept. 28, 1894	1,100 00
do new drill hall—Fittings for armouries, stores, &c.....	Geo. P. Wagner, Summers & Harris.....	Oct. 29, 1894	7,035 00
do new drill hall—Construction of sub-floor in basement.....	The Reid Bros. Manufacturing Co.....	June 19, 1895	640 00
do examining warehouse—Repairs to floor.....	John Kane.....	do 17, 1895	1,773 00
do drill hall—Painting, glazing, lettering and whitewashing.....	A. M. Browne.....	May 20, 1895	350 00
do drill hall—Ventilating pipes.....	Fidde's & Hogarth.....	do 20, 1895	1,118 00
do do Carpenter's works.....	J. Wilson.....	do 20, 1895	1,175 00
do do Bowling alleys.....	The Reid Bros. Manufacturing Co.....	do 20, 1895	1,100 00
Trenton, post office—Supply of coal.....	Chas. Crowe.....	Aug. 21, 1894	135 00
Walkerton do do.....	Trull Bros.....	do 20, 1894	187 43
Windsor do do.....	Scully & Bridges.....	Sept. 11, 1894	388 30
<i>Manitoba.</i>			
Brandon, post office—Supply of coal.....	John Hanbury.....	Aug. 27, 1894	568 75
<i>North-west Territories.</i>			
Calgary, public buildings—Supply of coal.....	The Calgary Cartage Co.....	Nov. 8, 1894	341 62
Lethbridge, public building—Hot air heating apparatus.....	T. F. Kirkham.....	do 7, 1894	1,408 00
Moose Jaw, court-house—Supply of coal.....	E. A. Baker & Co.....	Aug. 23, 1894	138 75
Moosomin do Additions, alterations.....	John W. Smith.....	Nov. 12, 1894	1,993 00
Regina, public buildings—Supply of coal.....	The Smith & Ferguson Co.....	Aug. 18, 1894	163 00
do do do.....	Paul, Knight & McKinnon.....	do 21, 1894	1,117 78
do court-house—Heating apparatus.....	Baxter, Turner & Bickle.....	Oct. 22, 1894	1,935 00
Wulseley do do.....	McKinley & Northwood.....	April 4, 1895	937 00
do do Supply of coal.....	Paul, Knight & McKinnon.....	Aug. 21, 1894	150 15
<i>British Columbia.</i>			
Victoria, military building—Officer's W. C. and fuel room.....	Geo. Glover.....	Nov. 21, 1894	829 00
do erection of public building.....	Elford & Smith.....	June, 19, 1895	198,765 00
do construction of a military storehouse.....	Bragg & Pike.....	do 21, 1895	2,680 00
<b>HARBOURS AND RIVERS.</b>			
<i>Nova Scotia.</i>			
Bass River—construction of wharf.....	John McMillan.....	Dec. 28, 1894	2,840 00
<i>Prince Edward Island.</i>			
Rustico—construction of new block and repairs to wharf.....	Heney & Smith.....	Mar. 12, 1895	4,276 00
<i>New Brunswick.</i>			
Pointe du Chêne—closing breach between new and old wharfs.....	do.....	July 27, 1894	1,350 00
do iron boiler plate protection on breakwater.....	do.....	Oct. 22, 1894	1,200 00



## Department of Public Works.

### No. 1.—CONTRACTS let by the Department of Public Works, &c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
			\$ cts.
<i>HARBOURS AND RIVERS—Concluded.</i>			
<i>Quebec.</i>			
Baie St. Paul—extension of wharf . . . . .	Edouard Tremblay . . . . .	Jan. 15, 1895	5,595 00
Belceil—improvement in channel in Richelieu river. . . . .	C. G. Beaulieu . . . . .	April 11, 1895	3,373 00
Hull—Pond Creek—bridge and pile trestle roadway . . . . .	Viau & Lachance . . . . .	Oct. 31, 1894	2,490 00
Philipsburg—construction of a landing pier . . . . .	Olivier Lefevre . . . . .	July 29, 1895	9,942 00
St. Thomas de Montmagny—dry wall on Rivière du Sud. . . . .	C. G. Beaulieu . . . . .	Dec. 11, 1894	4,480 00
<i>Ontario.</i>			
Ottawa River—Lower Narrows above Pembroke—removal of shoals . . . . .	W. J. Poupore . . . . .	Mar. 20, 1895	7,000 00
Owen Sound—sheet pile revetment . . . . .	D. Porter & J. Canan . . . . .	Oct. 19, 1894	18,638 00
Port Dover—dredging . . . . .	The U.S. & Ont. Steam Navig. Co. . . . .	Nov. 5, 1894	15,000 00
Thessalon—construction of pier . . . . .	Green & Reed . . . . .	April 3, 1895	8,328 00
<i>Manitoba.</i>			
Hnausa—construction of a pier . . . . .	Peter McVeigh . . . . .	Mar. 5, 1895	5,870 00
VESSELS, DREDGES AND PLANT.			
New spoon dipper dredge. . . . .	Carrier, Lainé & Co. . . . .	Jan. 22, 1895	40,000 00
TELEGRAPH AND SIGNAL SERVICE.			
Lethbridge and Cardston—construction and maintenance of telephonic connection between . . . . .	The Lethbridge and Cardston Telephone Co. . . . .	Nov. 17, 1894	1,717 50

J. A. CHASSÉ.

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 25th November, 1895.

No. 2.—STATEMENT of Property Purchased or Sold by the Department of Public Works during the fiscal Year ending 30th June, 1895.

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1894.						\$ cts.
Aug. 8.	Johanna Murphy	Her Majesty	Lot No. 21, in Maynard's Division	Halifax Drill Shed	25 x 100 ft	2,500 00
June 22	John Menger	do	do also lot in north suburb.	do		2,250 00
Aug. 8.	John W. Chandler et ux.	do	Piece of land, Cunard street	do		300 00
do	John F. Ryan	do	Lot at corner of North Park St. and St. John's Lane.	do		3,800 00
July 2.	Joseph Johnson et ux.	do	Part of lot 13, Maynard's Division.	do		2,200 00
Aug. 7.	Katie & Katherine Metz-enroth	do	do and buildings ther on, Maynard's Division	do		1,800 00
July 6.	Daniel Faulkner et ux.	do	Piece of land fronting on Maynard's street.	do		2,500 00
Aug. 4.	Marguerit and Jane Thompson	do	do Canard str et.	do		1,500 00
Sept. 17.	Wm. Power et ux.	do	Lots 15, 16 and 18, Maynard's Division.	do		5,152 00
July 12.	The Diocesan Synod of Nova Scotia.	do	Lot at corner of Cunard and North Park street.	do		3,000 00
*Feb. 11.	Mary Slattery et al.	do	Piece of land fronting on North Park street.	do		2,300 00
1894.						
*Oct. 31.	John Greenaway	do	Piece of land fronting on St. John's Lane	do		1,800 00
30 Nov. 12.	Fabyliana, Guertin and Geo. Guertin.	do	Tract of land on s utherly side of 1st chute of the Petawa,wa, Renfr-w County.	For decent of timber, &c.	7 acres, 2 rods, 16 pole.	750 00
July 3.	Isidore Leblanc et ux.	do	Babbins Cove, lot of land	Site for wharf.	$\frac{3}{10}$ of an ac.e.	100 00
Dec. 8.	T. W. Body	do	Portage la Prairie, town lots Nos. 25, 26.			4,950 00
do 1.	John Flynn et al.	do	Halifax, lan l covered with water, wharfs and buildings thereon			30,000 00
1895.						
March 14.	Corporation of the town of Thessalon.	do	Parcel of land composed of wa'er lots in front of lots 6-7, block L.	Rai way purposes.	54,758 sq. ft.	
April 9.	Corporation St. German de Rimouski	do	Piece of land	Erection of wharf	2 $\frac{1}{2}$ acres.	1 00
do 17.	James McPhee et ux	do	Lechiel, part of lot 38, 3rd concession, Tp. of Lochiel.	For public building.	90 x 100 ft	Free grant
do		do		Site for Alexandria Reformatory.	100 acres more or less.	5,000 00
do		do		Site for wharf		200 00
do 26.	Chris. Macdonald et ux.	do	Bayfield, N.S., lot of land and land covered with water.	Harbour purposes	$\frac{1}{16}$ of an acre.	50 00
do	Chas. Dunn	do	Antigonish, N.S., piece of land south side of harbour.			
†Feb. 2.	Leonard C. Archibald	do	do water lot on the shore of Bay St George. (under lease).	Harbour works		400 00

\* The amount in these cases has been adjudged by judgment from the Exchequer Court. † Being a transfer to Her Majesty of the privilege contained in Archibald's lease for the balance of the employteutic term.

J. A. CHASSÉ,

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 25th November, 1895.

# Department of Public Works

No. 3.—STATEMENT of Property Leased to and by the Department of Public Works during the Fiscal Year ended 30th June, 1895.

Date of Lease.	Lessor.	Lessee.	Property Leased.	For what purpose.	Duration of Lease.	Annual rent payable.
1894.						
Apr. 19.	The C. P. R. Co. ....	Her Majesty .....	Calgary, N. W. T., piece of land, 105 x 120 ft., being southwest quarter of sec. 15, township 24, range 1.	Immigration service .....	5 years .....	\$1 per annum.
Nov. 23.	Her Majesty.. ..	Elie Gagné.....	Saguenay River, water power.....	Private enterprise .....	During plea- sure.	\$5 per annum.
1895.						
Jan. 25.	do .....	Corporation of the City of Winnipeg.	Winnipeg, land and land covered with water and part of bed of Assiniboine River.	For erection of bridge.....	do ..	\$1 per annum.
Apr. 2.	Ovide Brien .....	Her Majesty .....	St. Lin, P. Q., building .....	For post office .....	5 years .....	\$300 per annum.
May 3.	Her Majesty .....	H. G. Harrison .....	Portland, N. B., store building with cellar, &c.....	Private enterprise .....	do .....	\$125 for 1st year, \$175 subsequent years.
June 21.	do .....	The G. T. Ry. Co. ....	Owen Sound, permission to build a freight shed on Government dock.	Railway purposes.....	During plea- sure.	\$1 per annum.

J. A. CHASSÉ.

DEPARTMENT OF PUBLIC WORKS,  
OTTAWA, 23th November, 1895



Department of Public Works.

APPENDIX No. 7.

---

NAMES OF THE CHIEF OFFICERS

OF THE

DEPARTMENT OF PUBLIC WORKS

WITH DATE OF APPOINTMENT, &C.

FROM

1841 to 1895



# Department of Public Works.

## APPENDIX No. 7

**THE NAMES with the date of appointment, &c., of the principal Officials of the Department of Public Works, from 1841 to 1895.**

Names.	Capacity or Office.	Date of Appointment Served.	
		From.	To
<i>Under Statute 4-5 Vic., Cap. 38.</i>			
<b>CORPORATION BOARD OF WORKS.</b>			
Killaly, Hon. H. H	Chairman		
Daly, Hon. D	} Members	Dec. 29, 1841	Oct. 3, 1844
Harrison, S. B.			
Davidson, J., Esq			
Begly, Thomas A.	Secretary	Aug. 17, 1841	
Keefer, Samuel	Chief Engineer	do 17, 1841	
Rubidge, F. B.	Architect and Assistant Chief Engineer	Dec. 15, 1841	
<b>NEW BOARD OF WORKS.</b>			
Killaly, Hon. H. H	Chairman		
Daly, Hon. D	} Members	Oct. 5, 1844	June 8, 1846
Draper, Hon. W. H.			
Morris, Hon. W.			
Papineau, Hon. D. B.			
<i>Under Statute 9th Vic., Cap. 37, &amp;c.</i>			
Robinson, Hon. W. B.	Chief Commissioner	July 4, 1846	March 10, 1848
Faché, Hon. E. P	do	March 11, 1848	Nov. 26, 1849
Chabot, Hon. J.	do	Dec. 15, 1849	March 31, 1850
Merritt, Hon. W. H.	do	April 20, 1850	Feb. 11, 1851
Bourret, Hon. J.	do	Feb. 15, 1851	Oct. 27, 1851
Young, Hon. John.	do	Oct. 28, 1851	Sept. 22, 1852
Chabot, Hon. J.	do	Sept. 23, 1852	Jan. 26, 1855
Lemieux, Hon. F.	do	Jan. 27, 1855	Nov. 25, 1857
Alleyn, Hon. C.	do	Zov. 28, 1857	Aug. 1, 1858
Holton, Hon. L. H.	do	Aug. 2, 1858	do 6, 1858
Sicotte, Hon. L. V	do	do 6, 1858	Jan. 10, 1859
Rose, Hon. John	do	Jan. 15, 1859	June 12, 1861
Cauchon, Hon. Jos	Commissioner	June 15, 1861	May 23, 1862
Tessier, Hon. U. J	do	May 24, 1863	May 27, 1863
Drummond, Hon. L. T.	do	do 28, 1863	July 23, 1863
Laframboise, Hon. M	do	July 23, 1863	March 29, 1864
Chapais, J. C	do	March 30, 1864	June 30, 1867
Casgrain, Hon. Chas. Eus	Second Commissioner	Aug. 1, 1846	
Cameron, Hon. M	Assistant Commissioner	March 11, 1848	
Wetenhall, John	do	Feb. 2, 1850	
Bourret, Hon. Jos	do	April 20, 1850	
Killaly, Hon. H. H.	do	Feb. 15, 1851	
Keefer, Samuel	Deputy Commissioner	May 6, 1859	
Trudeau, Toussaint	do	March 15, 1864	
Begly, Thomas A	Secretary	Sept. 25, 1847	
Trudeau, Toussaint	do	Dec. 13, 1859	
Braun, Frederick	do	March 8, 1864	
Page, John	Chief Engineer	Oct. 31, 1853	July 2, 1890

APPENDIX No. 7.—The names with the date of appointment, &c., of the principal Officials of the Department of Public Works, from 1841 to 1895—*Concluded.*

Names.	Capacity or Office.	Date of Appointment Served.	
		From.	To
<i>Under Statute 31 Vic., Cap. 12.</i>			
McDougall, Hon. Wm .....	Minister .....	July 1, 1867	Oct. —, 1869
Langevin, C. B., Hon. Hector L. ....	do .....	Dec. 8, 1869	Nov. 5, 1873
McKenzie, Hon. Alexander .....	do .....	Nov. 7, 1873	Oct. 16, 1878
Tubber, C.B., K.C.M.G., Sir Charles .....	do .....	Oct. 17, 1878	May 20, 1879
Langevin, C.B., K.C.M.G., Sir Hector L. ....	do .....	May 20, 1879	Sept. 8, 1891
Smith, Hon. Frank .....	Acting Minister .....	Aug. 14, 1891	Jan. 11, 1882
Ouimet, Hon. Joseph Aldric .....	Minister .....	Jan. 11, 1892	
Trudeau, Toussaint .....	Deputy Minister .....	July 1, 1868	Oct. 1, 1879
Baillaigé, G. F. ....	do .....	Oct. 4, 1879	Dec. 18, 1891
Gobeil, A. ....	do .....	Dec. 18, 1891	
Chapleau, S. ....	Secretary .....	Oct. 4, 1879	Nov. 4, 1880
Ennis, F. H. ....	do .....	Nov. 4, 1880	
Gobeil, A. ....	do .....	Jan. 23, 1885	Dec. 18, 1891
Roy, E. F. E. ....	do .....	Dec. 18, 1891	
McPherson, D. A. ....	Assistant Secretary .....	do 18, 1891	
Perley, H. F. ....	Chief Engineer .....	Nov. 25, 1880	Oct. 21, 1891
Baillaigé, G. F. ....	Assistant Chief Engineer .....	July 5, 1871	do 4, 1879
Coste, Louis .....	Chief Engineer .....	do 26, 1892	
Scott, Thos. S. ....	Chief Architect .....	Feb. 7, 1872	Nov. 4, 1881
Fuller, Thomas .....	do .....	Oct. 31, 1881	



Department of Public Works.

APPENDIX No. 8

---

STATEMENT

SHOWING THE

NAMES OF THE OFFICIALS EMPLOYED

ON THE

SLIDES AND BOOMS OF CANADA

ON THE 30TH JUNE, 1895

WITH

DATES OF APPOINTMENT, SALARIES, ETC.

APPENDIX No. 8.

STATEMENT showing Names, Dates of Appointment, Salaries, &c., of persons employed on the different Slides and Booms, on 30th June, 1895.

Name.	Date of Birth.	Position.	Where employed.	Date of Appointment.	Salary.	Remarks.
<i>Collector of Slide and Boom Duces.</i>						
E. T. Smith	Nov. 26, 1846	Collector	Ottawa	July 1, 1889	\$ cts. 1,625 00 per annum.	Date of first appointment to crown timber office, Ottawa, 23rd June, 1864. Clerk, Dept. of Inland Revenue, 1st July, 1870, to 30th June, 1889. Transferred to civil list with rank of first class clerk, 5th January, 1892.
196 James Slater	April 30, 1847	Assistant Collector	do	Nov. 14, 1889	1,000 00 do	Date of first appointment to crown timber office, Ottawa, 21st April, 1877. Clerk, Dept. of Inland Revenue, 1st April, 1883, to 30th June, 1889. Transferred to civil list with rank of 3rd class clerk, January, 1892.
James Steen	June 17, 1830	Boatman	do	July 12, 1889	60 00 per month.	Employed during the season of navigation, for 8 months each year. Date of first appointment, 26th May, 1861. Timber counter, Ottawa, for Dept. of Inland Revenue, 7th Jan., 1884, to 30th June, 1889.
John Redmond	August 2, 1833	do	do	do 12, 1889	60 00 do	Employed during the season of navigation, for 8 months each year. Date of first appointment, 1st May, 1872. Assistant timber counter, Ottawa, for Dept. of Inland Revenue, 7th Jan., 1884, to 30th June, 1889.
<i>Saguenay District.</i>						
Arthur Boulanger	Sept. 11, 1854	Superintendent	Saguenay	May 19, 1881	475 00 per annum.	<i>Saguenay Works.</i> —In addition to the Superintendent there are employed on the Saguenay works, 4 flagmen at 70c. per day each, during the passing of the logs through the slides, which lasts one or two months.
Joseph Boulanger	.....	Asst. superintendent	do	Oct. 1, 1889	30 00 per month.	



APPENDIX No. 8.—STATEMENT showing Names, &c., of persons employed on the different Slides and Booms—*Concluded.*

Name.	Date of Birth.	Position.	Where Employed.	Date of Appointment.	Salary.	Remarks.
<i>Newcastle District.</i>						
R. B. Bogers.....	Jan. 17, 1857.	Superintendent.....	Peterboro'.....	July 1, 1884....	\$ cts. 800 00 per annum.	Receives \$800 per annum from Department of Railways and Canals. do \$400 do
G. H. Giroux.....	.....	Clerk, supt.'s office..	do	July 1, 1880....	400 00 do	
Clement Armstrong.....	.....	Slide master.....	Chisholm Rapids.....	April 1, 1883..	200 00 do	
John Jordan.....	.....	do	Fenelon Falls.....	Aug. 15, 1892..	100 00 do	\$250 per annum as lock master. do R. & C.
R. T. Hill.....	.....	do	Buckhorn.....	July 1, 1891....	100 00 do	Receives \$150 per annum from Department of Railways and Canals.
Hamilton Johnston.....	.....	do	Heeley's Fall.....	July 15, 1893..	200 00 do	
<i>Burlington Channel.</i>						
Thos. Campbell.....	April 1, 1832.	Ferryman.....	Burlington.....	April 12, 1887.	400 00 do	
J. A. McDonald.....	.....	Asst. ferryman.....	do	April 1, 1890..	300 00 do	
<i>Yamaska District.</i>						
A. Labbé.....	.....	Lock keeper.....	Yamaska.....	Sept. 1, 1885..	40 00 per month.	
O. Mineau.....	.....	do	do	Sept. 1, 1885..	40 00 do	
<i>Rivière du Lièvre.</i>						
Alex. MacCallum.....	.....	Lock master.....	Rivière du Lièvre.....	May 14, 1892..	40 00 do	
Simon Raymond.....	.....	Labourer.....	do	April 1, 1894..	35 00 do	

R. STECKEL.

Department of Public Works.

APPENDIX No. 9

---

LIST

OF

ENGINEERS, ENGINEMEN, FIREMEN AND CARETAKERS

EMPLOYED IN THE

PUBLIC BUILDINGS THROUGHOUT THE DOMINION

ON THE 30th JUNE, 1895

GIVING

DATE OF APPOINTMENT, SALARY PAID, &c.

APPENDIX No. 9.

STATEMENT showing the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on 30th June, 1895.

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Salary per Month.	Time employed per Annum.	Total Salary per Annum.
						\$ cts.		\$ cts.
Amherst.	Post office.	James Morrison.	May 2, 1824	Caretaker.	Nov. 2, 1886	33 33	12 months	400 00
Amherst.	Public building.	Angus McDonald.	March 1, 1820	do	Feb. 5, 1891	33 33	12 do	400 00
Annapolis.	Post office and C. house.	John McKay.	Oct. 26, 1847	do	April 1, 1891	33 33	12 do	400 00
Baddeck.	Public building.	Alex. S. McDonald.	Dec. 11, 1855	do	Dec. 23, 1886	16 57	12 do	200 00
Dartmouth.	do	J. C. Henley	do 11, 1846	do	May 22, 1894	20 83	12 do	250 00
Halifax.	Dominion building	John Powell	Aug. 21, 1836	Engineer.	Oct. 1, 1871	62 50	12 do	750 00
do	do	Richard Power.	do 15, 1834	Fireman.	do 1, 1871	50 00	9 do	450 00
do	do	J. F. Sullivan	Sept. 16, 1822	Caretaker.	do 31, 1885	33 33	12 do	400 00
do	do	W. H. Gray	Nov. 26, 1848	Watchman.	Sept. 10, 1891	39 00	12 do	468 00
do	Examining warehouse.	Wm. Power	Feb. 6, 1834	Caretaker.	Jan. 26, 1887	41 57	12 do	500 00
Lunenburg.	Public building.	J. E. Hebb.	Dec. 17, 1832	do	June 7, 1895	25 00	12 do	300 00
New Glasgow.	Post office.	Daniel McDonald	do 24, 1847	do	Jan. 20, 1890	33 33	12 do	400 00
North Sydney.	Public building.	Angus McEachern.	do 22, 1822	do	Jan. 31, 1888	33 33	12 do	400 00
Pictou.	Custom-house	Geo. Robson.	do 25, 1845	do	Dec. 8, 1890	33 33	12 do	400 00
Sydney, South.	Post office and C. house.	N. H. McNeill.	do 2, 1826	do	Sept. 22, 1892	33 33	12 do	400 00
Turo.	Post office.	Hugh McCulloch.	June 2, 1846	do	do 22, 1888	33 33	12 do	400 00
Windsor.	do	Aug. H. Parsons	March 3, 1846	do	do 23, 1886	33 33	12 do	400 00
Yarmouth.	Public building.	Robert Spears	Sept. 15, 1824	do	Dec. 23, 1886	33 33	12 do	400 00
Charlottetown.	Dominion building.	Wm. J. Fraser.	Jan. 1, 1836	do & fireman	April 3, 1894	28 00	12 do	336 00
do	do	J. S. McLeod.	Nov. 14, 1868	Fireman.	Dec. 13, 1894	28 00	12 do	336 00
do	do	Geo. Walker	Aug. 28, 1826	Messenger.	Jan. 19, 1875	37 00	12 do	444 00
do	do	Wm. Byrne.	do	do	Dec. 5, 1892	37 00	12 do	444 00
do	do	D. F. Macdonald	March 15, 1858	Caretaker.	do 1, 1890	33 33	12 do	400 00
Montague.	Public building.	Martin Lambert	Nov. 12, 1845	do	Jan. 12, 1887	13 33	12 do	160 00
Summerside.	Dominion building.	James Brazil.	Nov. 1816	do	Nov. 5, 1885	33 33	12 do	400 00
Bathurst.	Post office	J. A. Melançon	Jan. 20, 1825	do	April 13, 1887	33 33	12 do	400 00
Charham.	do	C. Johnston	do	do	March 27, 1895	25 00	12 do	300 00
Carleton, St. John.	do	Jas. R. Reid	Aug. 15, 1823	do	Oct. 1, 1889	8 33	12 do	100 00
Dalhousie.	do	Wm. Gould.	Jan. 1, 1853	do	Nov. 26, 1890	33 33	12 do	400 00
Fredericton.	do	Jas. Perkins	Oct. 5, 1847	do	May 31, 1881	33 33	12 do	400 00
Moncton.	do	E. B. Hicks	Jan. 11, 1832	do	Jan. 11, 1886	33 33	12 do	400 00

# Department of Public Works.

Newcastle.	do	Patrick Keating	March 13, 1840	do	Oct.	23, 1886	33 33 12	do	400 00
St. Stephen.	do	Samuel Topping	April 2, 1839	do	May	25, 1887	33 33 12	do	400 00
Sussex	do	Thomas Abill	Feb. 18, 1826	do	Oct.	19, 1883	33 33 12	do	400 00
St. John	Custom-house	Noel J. Morrison	July 26, 1808	Engin'r & caret kr.	April	17, 1894	60 00 12	do	720 00
do	do	Christopher White	Nov. 20, 1844	Fireman.	Nov.	9, 1885	30 00 12	do	300 00
do	do	Jas. A. Paul	Aug. 1, 1837	Caretaker.	Oct.	13, 1891	41 67 12	do	500 00
do	Post office.	James Wolfe.	March 10, 1850	Engineer.	Dec.	1, 1893	55 00 12	do	660 00
do	do	Ed. Haney	Feb. 22, 1849	Hoist attendant.	Nov.	27, 1882	50 00 12	do	600 00
Woodstock	do	Wm. Kennedy	May 2, 1825	Caretaker.	Feb.	1, 1890	33 33 12	do	400 00
Aylmer	do	Miss M. G. Woods	Nov. 16, 1839	do	April	29, 1895	5 00 12	do	60 00
Coaticook	Public building.	Israel Baldwin	April 13, 1847	do	June	27, 1889	33 33 12	do	400 00
Hull	Post office, &c	J. H. Kerr	Sept. 29, 1826	do	Feb.	14, 1893	12 50 12	do	150 00
Toilette	do	Chas. Guibault	Sept. 21, 1831	do	Oct.	15, 1885	33 33 12	do	400 00
Lachine	do	F. Caisse	Feb. 18, 1836	do	Sept.	22, 1893	8 33 12	do	100 00
Montreal.	Dominion buildings.	Thos. Ryan	June 18, 1848	Fireman engineer.	March	4, 1882	100 00 12	do	1,200 00
do	Examining warehouse.	M. Boyer	May 27, 1868	Fireman.	do	4, 1883	50 00 12	do	600 00
do	do	Alex. Jaudelin.	May 27, 1868	do	do	1, 1893	45 00 12	do	540 00
do	Post office.	F. Greene	Oct. 4, 1837	Engineer.	Jan.	1, 1885	60 00 12	do	720 00
do	do	L. D. Thibault	Jan. 28, 1861	Electrician	June	1, 1885	60 00 12	do	720 00
do	do	Jos. Dufresac.	Feb. 2, 1863	Elevator man	Dec.	15, 1893	50 00 12	do	600 00
do	do	Art. Forget.	July 25, 1897	do	do	15, 1893	50 00 12	do	600 00
do	do	S. N. Nickle	Dec. 25, 1871	do	March	1, 1894	50 00 12	do	600 00
do	do	C. Vadebonneur.	May 17, 1842	Caretaker W. C.	Feb.	6, 1894	1.25 p.d.	do	456 25
do	do	Alfred Filiatrault.	Nov. 5, 1860	Messenger	Aug.	1, 1892	45 00 12	do	540 00
do	Inland revenue.	Louis St. Jean	Sept. 17, 1840	Fireman.	Dec.	1, 1892	50 00 12	do	600 00
do	Custom-house.	J. H. Marchand	do	do	do	2, 1882	50 00 12	do	600 00
do	do	C. Daudelin	June 18, 1843	do	July	16, 1892	2.00 p.d.	do	720 00
do	Drill hall and armouries	Wm. McDonald	Sept. 17, 1832	Engineer.	Feb.	21, 1888	45 00 12	do	540 00
do	Dominion buildings	J. H. Delongchamp	Feb. 2, 1839	General jobber	do	1, 1890	50 00 12	do	600 00
do	Examining warehouse	Jas. Mathews.	Sept. 25, 1836	Engineer.	Dec.	4, 1885	75 00 12	do	900 00
Quebec.	do	Thos. McLaughlin.	Aug. 25, 1871	Fireman.	Aug.	27, 1892	45 00 8	do	360 00
do	Culler's office.	James O'Neil	do	do	July	7, 1894	45 00 5	do	540 00
do	Custom-house	John K. Mountain	Nov. 1, 1848	Acting fireman.	Nov.	10, 1888	45 00 12	do	540 00
do	Post office	F. J. Cooper	May 15, 1824	Caretaker.	June	15, 1895	45 60 12	do	547 50
do	do	Z. Boucher.	do	do	July	2, 1892	33 33 12	do	400 00
do	do	Thos. Rawson	do	do	Dec.	12, 1884	33 33 12	do	400 00
do	do	P. St. Michel	Feb. 26, 1829	do	Sept.	27, 1886	33 33 12	do	400 00
do	do	A. C. A. Bissonette	do	do	March	4, 1895	33 33 12	do	400 00
do	Public building.	F. X. Tétrault	Nov. 8, 1846	Fireman.	Aug.	5, 1893	33 33 12	months	400 00
do	Post office.	Widow J. Forrant	Oct. 27, 1814	Caretaker.	May	30, 1888	16 66 12	do	200 00
do	do	Wm. Comper.	May 20, 1826	Watchman.	Dec.	28, 1881	12 50 12	do	150 00
do	do	Médard Grignon	June 25, 1828	Caretaker.	March	11, 1890	33 33 12	do	400 00
do	Public building.	Ph. Gravel	do	do	Feb.	1, 1891	25 00 12	do	300 00
do	Custom-house	Jos. Carboneau	do	do	July	27, 1883	33 33 12	do	400 00
do	Post office.	Geo. McLeod.	April 16, 1838	Messenger	Nov.	1, 1891	25 00 12	do	300 00
do	Custom-house	John Lovegrove.	Dec. 19, 1836	Caretaker.	Feb.	5, 1885	33 33 12	do	400 00
do	Post office.	Wm. Moulton	March 23, 1839	do	Jan.	30, 1891	33 33 12	do	400 00
do	do	Mrs. Wm. Shepherd	Oct. 29, 1835	do	April	6, 1888	33 33 12	do	400 00
do	do	John Squires.	April 24, 1842	do	Oct.	27, 1886	50 00 12	do	600 00
do	do	Fred. Edwards.	March 3, 1844	do	March	2, 1886	33 33 12	do	400 00

STATEMENT showing the Engineers, Firemen, Caretakers, Hoist Attendants and Watchmen employed at the Dominion Public Buildings, &c.—Continued.

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Salary per Month.	Time employed per Annum.	Total Salary per Annum.
						\$ cts.		\$ cts.
Belleville	Post office.	J. P. Reeves.	Nov. 27, 1820	Caretaker.	Oct. 17, 1883	50 00	12 months.	600 00
Berlin.	do	A. E. Lyons.	Oct. 5, 1840	do	do 1, 1895	33 33	12 do	400 00
Brampton.	do	James McBride.	April 17, 1868	do	Jan. 29, 1881	33 33	12 do	400 00
Carleton Place.	do	Jas. Halpenny.	Feb. 11, 1849	do	May 31, 1892	25 00	12 do	300 00
Clifton.	do	Gilbert Campbell.	do	do	Oct. 8, 1885	33 33	12 do	400 00
Chatham.	do	Henry Dunn.	May 25, 1843	Engineman.	Sept. 23, 1884	50 00	12 do	600 00
do	do	W. W. Mitchell.	do	Caretaker.	Jan. 7, 1885	33 33	12 do	400 00
do	do	Thos. Murphy.	do 1, 1843	do	March 3, 1891	33 33	12 do	400 00
Cornwall.	do	G. A. Gibson.	do 29, 1843	do	Sept. 3, 1891	4 16	12 do	50 00
Cayuga.	do	H. J. Payne.	Jan. 31, 1854	do	April 24, 1890	33 33	12 do	400 00
Colbourg.	do	Wm. Kilgour.	March 3, 1857	do	Sept. 23, 1886	33 33	12 do	400 00
Galt.	do	Robert Higham.	May 20, 1834	do	Oct. 29, 1889	33 33	12 do	400 00
Guelph.	do	Thos. P. Richardson.	Feb. 25, 1834	do	May 1, 1889	33 33	12 do	400 00
Gananoque.	do	Lewis Elliot.	April 8, 1832	do	July 2, 1890	33 33	12 do	400 00
Goderich.	do &c.	Alfred Barnard.	Dec. 27, 1847	do	Dec. 10, 1894	50 00	12 do	600 00
Hamilton.	Dominion building.	Thos. Nicholson.	Nov. 14, 1848	Fireman.	Nov. 7, 1887	45 00	6 do	270 00
do	do	Thos. Beatty.	Dec. 17, 1857	Engineer.	March 2, 1887	50 00	12 do	600 00
do	Drill hall.	Wm. Harris.	May 20, 1841	Fireman.	Dec. 12, 1889	45 00	12 do	540 00
do	Military college.	William Johnson.	Sept. 12, 1842	Engineer.	May 31, 1881	65 00	12 do	780 00
Kingston.	do	M. Madden.	Dec. 22, 1838	Fireman.	Oct. 12, 1878	55 00	6 do	330 00
do	Custom-house.	M. Mulken.	Sept. 4, 1839	Engineman.	Sept. 18, 1888	50 00	12 do	600 00
London.	Post office.	Wm. Greer.	Oct. 12, 1839	Caretaker.	March 16, 1884	33 33	12 do	400 00
do	do	John Price.	do 6, 1836	Engineer.	Jan. 16, 1893	33 33	12 do	400 00
do	do and C. house.	Wm. Galbraith.	Jan. 8, 1844	Caretaker.	Nov. 22, 1886	33 33	12 do	400 00
Lindsay.	do	Wm. Hearn.	March 28, 1853	do	June 15, 1886	33 33	12 do	400 00
Napanee.	do	John Wilkins.	May 29, 1830	do	Sept. 15, 1886	33 33	12 do	350 00
Orangeville.	do	S. Baskerville.	Aug. 1, 1839	do	Nov. 24, 1893	41 66	12 do	500 00
Orillia.	do	John Irwin.	Nov. 17, 1842	do	June 8, 1887	33 33	12 do	400 00
Peterborough.	do	Chs. McRitchie.	March 29, 1853	do	July 1, 1894	33 33	12 do	400 00
Petrolia.	do	Wm. Armstrong.	Sept. 9, 1846	do	June 11, 1888	20 00	12 do	240 00
Port Colborne.	do	Levy Reynolds.	Feb. 15, 1839	do	Nov. 17, 1885	33 33	12 do	400 00
Port Hope.	do	John Whitehead.	April 15, 1839	do	Sept. 11, 1893	33 33	12 do	400 00
Port Arthur.	Public building.	Samuel Hamilton.	June 14, 1834	do	Oct. 29, 1890	33 33	12 do	400 00
Pembroke.	do	Rufus Henderson.	April 6, 1822	do	Dec. 23, 1890	33 33	12 do	400 00
Prescott.	Post office.							



## Department of Public Works.

do	Custom-house	Geo. McGookin	Dec.	3, 1869	do	do	June	12, 1892	8 33	12	100 00
Stratford	Post office, &c	J. H. Roberts	May	1, 1847	Engineer	do	Feb.	7, 1884	50 00	12	600 00
St. Catharines	do	Wm. Bryson	Feb.	4, 1843	Caretaker	do	Aug.	9, 1883	33 33	12	400 00
St. Thomas	do	Jas. Russell	Sept.	15, 1832	do	do	Sept.	4, 1885	33 33	12	400 00
Strathroy	Public building	Wm. J. Johnson	May	12, 18 0	do	do	Oct.	25, 1890	33 33	12	400 00
Toronto	Dominion buildings	Wm. Bell	Sept.	9, 1836	Fireman, engineer	do	Sept.	30, 1893	100 00	12	1,200 00
do	Inland revenue building	J. H. Venables	Oct.	16, 1875	Fireman	do	Dec.	19, 1894	50 00	6	300 00
do	Custom-house	Fred. Faragher	Feb.	10, 1844	Engineer	do	Dec.	28, 1874	65 00	12	780 00
do	Examining warehouse	Jas. Cosgrove	Sept.	26, 1864	Fireman	do	Sept.	23, 1886	55 00	12	600 00
do	do	Alex. Dey	do	27, 1863	Hoist attendant	do	Dec.	1, 1887	50 00	12	600 00
do	do	Wm. Chenery	Dec.	19, 1851	do	do	do	1, 1887	50 00	12	600 00
do	do	W. J. Slean	July	5, 1855	do	do	March	2, 1888	50 00	12	558 00
do	do	Jas. Richardson	Feb.	23, 1831	Watchman	do	Sept.	3, 1888	46 50	12	600 00
do	do	Henry L. Bell	Dec.	29, 1864	Engineer	do	May	9, 1885	50 00	12	300 00
do	Post office	Samuel Fitzgerald	do	26, 1859	Fireman	do	Nov.	1, 1889	50 00	6	300 00
do	do	John Somers	April	8, 1835	do	do	Dec.	1, 1889	50 00	12	600 00
do	Drill hall	Chs. H. Baillie	Sept.	22, 1852	Engineer	do	Jan.	13, 1891	50 00	12	400 00
Trenton	Public building	David Allan	May	13, 1844	Caretaker	do	Aug.	31, 1889	33 33	12	400 00
Windsor	Post office	F. Parker	Aug.	6, 1833	Engineman	do	Oct.	3, 1888	50 00	12	600 00
do	do	W. Courtis	March	6, 1844	Caretaker	do	Nov.	9, 1880	33 33	12	400 00
do	Public building	Andrew McLean	Nov.	24, 1825	do	do	July	20, 1891	33 33	12	400 00
Walkerton	do	John Fawcett	May	11, 1857	do	do	Aug.	18, 1890	40 00	12	840 00
Brandon	Post office	J. R. Alexander	Aug.	19, 1852	Engineman	do	June	1, 1889	45 00	12	270 00
Winnipeg	do	Patrick Dillon	March	17, 1849	Fireman	do	Jan.	1, 1889	45 00	6	240 00
do	do	Jos. Coutu	May	10, 1843	Hoist attendant	do	March	16, 1887	45 00	12	540 00
do	do	Jos. Gagnier	April	11, 1853	Watchman	do	June	7, 1892	45 00	12	540 00
do	do	A. G. Hamilton	May	14, 1848	Caretaker	do	Jan.	31, 1891	45 00	12	400 00
Moosemin	Court house	George Northgraves	do	20, 1838	do	do	June	14, 1888	33 33	12	400 00
Prince Albert	do and jail	Geo. Cassie	Jan.	13, 1833	do	do	Aug.	25, 1893	33 33	12	400 00
do	Land and registry office	G. L. Fraser	Oct.	20, 1851	do	do	do	1, 1894	40 00	12	480 00
Calgary	Public building	R. Wylie	July	7, 1859	do	do	do	21, 1894	35 00	12	420 00
Edmonton	Land and registry office	Robert Sage	do	5, 1854	do	do	Aug.	28, 1894	35 00	12	400 00
Lethbridge	Court house and C. house	W. A. Porter	Jan.	4, 1822	do	do	July	19, 1894	50 00	12	600 00
Moose Jaw	do	Ralph Johnson	Nov.	4, 1822	do	do	Jan.	11, 1892	50 00	12	600 00
Nanaimo	Post office	John McMurphy	Aug.	12, 1812	do	do	Oct.	1, 1884	50 00	12	600 00
New Westminster	do	George E. Windser	do	6, 1843	do	do	July	13, 1893	50 00	12	600 00
Victoria	Public building	Atwell King	April	6, 1843	do	do	Aug.	25, 1893	33 33	12	400 00
Vancouver	do										

R. STECKEL.



Department of Public Works.

APPENDIX No. 10

---

STATEMENT

SHOWING

NAMES, DATES OF APPOINTMENTS, SALARIES &c.

OF

PERSONS EMPLOYED

ON THE DIFFERENT

GRAVING DOCKS

30TH JUNE 1895



Department of Public Works.

APPENDIX No. 10.

STATEMENT showing Names, Dates of Appointment, Salaries, &c., of persons employed on the different Graving Docks, 30th June, 1895.

Name.	Date of Birth.	Position.	Where employed.	Date of Appointment.	Salary.	Remarks.
<i>Esquimalt Graving Dock, British Columbia.</i>						
John Devereux.		Dockmaster.	Esquimalt.	Sept. 17, 1887.	\$165 66 per month	
A. C. Muir.		Engin'er.	"	April 1st, 1887.	100 00	
J. W. Muir.		Asst. engineer.	"	Jan. 11, 1892.	80 00	
A. D. Greeves.		Carpenter.	"	Dec. 1st, 1887.	80 00	
F. M. Jones.		Stoker.	"		60 00	
F. Williams.		do.	"		60 00	
John Stack.		Watchman.	"		50 00	
<i>Lévis Graving Dock.</i>						
Ulric Valiquette.	30th June, 1856.	Dockmaster.	Lévis.	April 13, 1891.	1,800 00 per annum.	Annual allowance of \$200 for house rent. First appointment, 9th May, 1873.
Honoré Lamontagne.		Dock foreman.	"	" 9, 1891.	83 33 per month	
Wm. Macdougall.		Mech'l engineer.	"	June 1st, 1888.	75 00	
Napoléon Lemelin.		Asst. mech'l engr'r.	"	" 1st, 1888.	45 00	
Narcisse Lemelin.		Fireman.	"	" 1st, 1888.	32 00	
Théodore Chabot.		Caretaker and watchman.	"	April 9, 1891.	45 00	
<i>Kingston Graving Dock.</i>						
James Wilson.		Dockman.	Kingston.	July 2, 1892.	1,400 00 per annum.	
Robert McLeod.		1st engineer.	"	" 1st, 1892.	75 00 per month	
Wm. Geagion.		Fireman.	"	" 1st, 1892.	45 00	
Patrick Hurley.		Caretaker.	"	" 1st, 1892.	45 00	
C. Staley.		Watchman.	"	" 1st, 1892.	45 00	

R. STECKEL.



Department of Public Works.

APPENDIX No. II

---

TABULAR STATEMENT

SHOWING THE DATES OF THE

CLOSING AND OPENING OF NAVIGATION

AT THE

PRINCIPAL PORTS OF CANADA

ON THE SEABOARD, THE RIVER AND GULF OF ST. LAWRENCE AND  
ON THE GREAT LAKES

## APPENDIX No. II.

STATEMENT showing the date of the closing and opening of navigation at the undermentioned ports in Canada, in 1894 and 1895.

Ports.	Province.	Location.	Date of Closing 1894-95.	Date of Opening 1895.	Remarks.
Arichat, C.B.	Nova Scotia.	Isle Madame.	Feb. 5.	March 15.	First part of winter was very mild.
Bathurst.	New Brunswick.	Baie des Chaleurs.	Nov. 23.	April 23.	
Belleville.	Ontario.	Lake Ontario.	do 23.	do 23.	
Campbellton.	New Brunswick.	Baie des Chaleurs.	Nov. 19.	do 27.	Ferry boat crossed on the 26th April.
Charlottetown.	P. E. Island.	Gulf of St. Lawrence.	Dec. 24.	do 17.	Steam tug "William Atkin" left for Picton April 19th and returned with cargo of flour next day.
Collingwood.	Ontario.	Georgian Bay, Lake Huron.	Dec. 3.	do 27.	
Gaspé.	Quebec.	Gulf of St. Lawrence.	Jan. 9.	May 2.	
Georgetown.	P. E. Island.	do	Jan. 28.	April 23.	Harbour was open to Railway wharf 23rd April.
Goderich.	Ontario.	Lake Huron.	Dec. 4.	do 20.	
Halifax.	Nova Scotia.	Atlantic Ocean.	do	do	Open and free from ice all the year round.
Halifax.	Nova Scotia.	Atlantic Ocean.	do	do	Harbour was open but no arrivals until the 20th.
Kincardine.	Ontario.	Lake Huron.	Nov. 26.	April 10.	
Kingston.	Ontario.	Lake Ontario.	Jan. 10.	do 15.	Harbour was open and accessible all winter.
Louisburg, C.B.	Nova Scotia.	Atlantic Ocean.	do	do	
Montreal.	Quebec.	River St. Lawrence.	Dec. 26.	April 20.	The ice was light, but formed early, and remained late.
North Rustico.	P. E. Island.	Gulf of St. Lawrence.	do 25.	do 20.	Very few days during the past winter, but a vessel could enter this
North Sydney.	Nova Scotia.	Atlantic Ocean.	Jan. 7.	do 3.	harbour.
Owen Sound.	Ontario.	Georgian Bay.	Dec. 3.	do 20.	Vessels might come into port about April 1st.
Percé.	Quebec.	Gulf of St. Lawrence.	do 22.	do 15.	
Picton.	Nova Scotia.	do	do 24.	do 19.	
Port Arthur.	Ontario.	Lake Superior.	do 10.	do 23.	The last steamer cleared 10th Dec. Ice formed about 22nd Dec.
Port Dover.	do	Lake Erie.	do 15.	do 15.	Very solid ice during January, February and part of March.
Port Hope.	do	Lake Ontario.	Jan. 23.	do 13.	Ice formed December 15th.
Port Stanley.	do	Lake Erie.	Dec. 27.	do 4.	
Quebec.	Quebec.	River St. Lawrence.	Dec. 5.	do 3.	Ice was formed on river Nov. 27th. First arrival from sea April 26th. Two ships went to sea, and one arrived from Murray Bay on dates given.
St. Ann's, C.B.	Nova Scotia.	Atlantic Ocean.	Jan. 6.	do 30.	Never closed. Port always open.
St. John.	New Brunswick.	Bay of Fundy.	do	do	Last boat passed down canal 23rd Nov. Canal open 3rd May, 1895.
St. John's.	Quebec.	River Richelieu.	Nov. 28.	April 22.	Navigation at this port was open all winter.
St. Peter's, C.B.	Nova Scotia.	Atlantic Ocean.	do	do	



# Department of Public Works.

Sarnia	Ontario	Lake Huron	Dec. 28	April 6	Harbour was clear of ice about the 16th of April; first arrival was on 22nd.
Sault Ste. Marie	do	Lake Superior	do 6	do 23	
Shediac	New Brunswick	Gulf of St. Lawrence	do 8	do 22	
Sorel	Quebec	River Richelieu	Nov. 30	do 20	Dates of last departure and first arrival.
Sydney, C.B.	Nova Scotia	Atlantic Ocean	Jan. 27	do 25	Very little drift ice on the coast last spring.
Tadoussac	Quebec	River St. Lawrence	Nov. 8	March 30	Dates given are last departure and first arrival. Ice began to form about the 18th or 20th November, 1894.
Three Rivers	do	do	do 27	April 23	Water unusually low.
Toronto	Ontario	Lake Ontario	Dec. 23	do 5	The ferry boats ran every day during the year between this port and Detroit, Mich., U.S.A.
Warton	do	Georgian Bay, Lake Huron	do 23	do 24	
Windsor	do	Detroit River	do 31	March 30	
Winnipeg	Manitoba	Red River	Nov. 9	April 8	These dates are for the Red River. Lake Winnipeg was probably a little earlier, vessels generally stop running about middle of Oct. Information not received when this went to press.
York Factory	N. W. Territories	Hudson Bay			



Department of Public Works.

APPENDIX No. 12

---

REPORT

ON

GOVERNMENT TELEGRAPH LINES

FOR THE FISCAL YEAR ENDED 30<sup>TH</sup> JUNE, 1895



## Department of Public Works.

### APPENDIX No. 12.

#### GOVERNMENT TELEGRAPH SERVICE.

OTTAWA, 3rd December, 1895.

SIR,—I beg leave to submit the following report upon the telegraph service, for the twelve months ended 30th June, 1895, with the usual tabular statements of lines, operating staff, etc., established in the several districts.

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

D. H. KEELEY,  
*General Superintendent.*

E. F. E. Roy, Esq.,  
Secretary, Department of Public Works.

#### TELEGRAPH SERVICE—1894-95.

##### NEWFOUNDLAND.

The line from Port au Basque to Cape Ray has been operated, as heretofore, by the Anglo-American Telegraph Company.

##### MARITIME PROVINCES.

The Meat Cove line, the Cheticamp line, and the Cape Sable line, have continued in operation in conjunction with the Western Union Telegraph system.

In a heavy storm on the 5th February, about half a mile of the Meat Cove line near South Ingonish was swept away. Temporary repairs were promptly made and that portion of the line was rebuilt a little later on (in April).

In June, a loop line off the Baddeck extension, 2½ miles to Port Bevis, was constructed and an office opened at the Gypsum Company's works at that place. The company furnished and distributed the poles as a contribution to the work.

The cable across Barrington Passage, Bear Point to Newell's Head, 1½ miles, ceased working on the 28th February. The steamer "Newfield" was already in requisition for cable repairs in the Bay of Fundy, and the repair of this Barrington section was arranged to be attended to *en route*.

[NOTE.—It was not until the end of September the "Newfield" became available. The cable which was laid in 1883 and now interrupted for the first time, was found on examination to be badly wasted away in many spots. Three-quarters of a mile of new cable was put in to restore the connection (25th September), but of what was taken up, about half a mile was subsequently got into serviceable condition for use elsewhere.]

The Escuminac line continues in operation as heretofore in conjunction with the Great North-western telegraphs. There was some further general repairs made on this line in the course of the year; the pole line for a length of about three miles across the marsh land of the Escuminac plain has been reset and braced and otherwise made good as new.

The Bay of Fundy system continued in operation in the condition described in the last annual report, without change until the 4th October, when the cable between Campobello and Grand Manan gave out. The steamer "Newfield" visited the locality in the latter part of the same month and both of the cable sections were

overhauled and put in order. The trouble on the Eastport section was found to be due to decay of the cable insulation on the shore at Campobello and a further insulation fault developed at a point about half a mile off the Eastport side. The interruption of the Grand Manan cable was apparently due to its having been chafed through on rocks close to Liberty Point. The shore end of this landing was on examination found in a generally poor condition; a new length was landed and laid out well clear of the point and connection was restored between the islands on the 17th November. Again on the 9th of last February (1895) however this cable suddenly gave out again and remained inoperative for some considerable time because of the "Newfield" being unobtainable for the repairs.

[NOTE.—The steamer "Newfield" as mentioned elsewhere in this report could not be secured for the cable work until the autumn. The Grand Manan cable was attended to in October (1895), the repair being made on the 22nd. It was at this time, in the course of the repairing, found to have been parted in two places by vessels' anchors; one break was in the cove at Liberty Point and the other close to the shore at Long Eddy, there was no indication of chafing of the armour wires in either case.]

Last fall the land line sections on Campobello and Grand Manan Islands were thoroughly overhauled and put in a good state of repair.

#### RIVER AND GULF ST. LAWRENCE.

With the exception of the St. Paul's Island section, the several cables in the gulf and along the north shore continued free of interruption throughout the year.

The St. Paul's cable ceased working on the 2nd May, it remained unrepaired during the summer owing to the steamer "Newfield" not being available for the service.

[NOTE.—When picked up in the course of repair by the "Newfield" this past November, this cable was found to have been parted by a vessel's anchor 3 miles off the Meat Cove landing. Communication was restored on the 19th November. A heavy fault was then found to exist in it at a point apparently about 4 miles off St. Paul's Island; the season was however too far advanced to afford reasonable chances for effecting a complete repair, but the cable will likely continue operative in its present condition, until further attention to it becomes practicable. Mention might also be made here of an interruption of the Magdalen Islands cable having occurred on the 20th September (1895), it too was found to have been broken by a vessel's anchor about  $3\frac{1}{2}$  miles off Meat Cove. Communication was restored on the 12th November.]

The land lines on the Magdalen Islands are being thoroughly overhauled this season. The pole line has been shifted in many places to more reliable ground and 50 new poles were procured from Gaspé and put in where needed along the route.

The land lines on Anticosti and along the North Shore of the St. Lawrence have been kept in an efficient state of repair. The interruptions that have occurred were few and of very brief duration as the facilities for making repairs are being improved in these districts.

On the North Shore below Manicouagan three more small bridges were thrown across streams, viz., at Big Calumet, 129 feet; Little Calumet, 100 feet; and May Islands, 75 feet. Three others, provided at an earlier period at Pigou River, Beby's River, and Magpie, were renewed; and some additional shelter huts and flat boats for river crossings, were provided in the course of the year, for the purpose of facilitating the movements of repairers along the line, the condition of which was fairly set forth in the last annual report.

Owing to a heavy freshet occurring last fall just about the time the reconstruction was being undertaken of the bridges that had been carried away the previous year between Bersimis and Sault au Cochon, the work had to be deferred. It was however taken in hand early in the spring and by the middle of April the whole was completed under the immediate supervision of Mr. Geo. W. Forrest of

## Department of Public Works.

Sault au Cochon. The whereabouts and dimensions of these bridges are given as follows: River Raymond, 44 feet; Blanche, 60 feet; Columbia, 68 feet; Laval, 100 feet; and River au Pin, 129 feet.

The branch line from Bay St. Paul to Chicoutimi has continued in satisfactory operation under the same conditions as were mentioned in last year's report.

The cable of the St. François-Isle Reaux section of the Grosse Isle quarantine system, became inoperative on the 10th December last. Nothing could be done to it till the 29th April following, when communication was restored; but the connection was faulty and unreliable in consequence of the cable having been badly crushed by ice at several points on either shore. Two lengths of 600 feet each of a special locked, armour type of 8-ton shore end cable calculated to withstand the ice, had in the meantime been ordered and when these came to hand a reliable connection was re-established.

[NOTE.—This was on the 8th August (1895). The special lengths were put in over the rocky shores beyond low water mark, the former cable being embedded in cement and intact to this point in each instance. The work was done by means of a steam tug and batteau.]

With the exception of the interruption here reported, the quarantine telegraph and the telephone system at Grosse Isle were satisfactorily operated during the year.

### ONTARIO.

The Bath-Amherst Island line and the Wolfe and Howe Island lines have been, as in previous years, operated by the North American Telegraph Company.

The Pelee Island cable, which was put in order in November, 1893, again became inoperative on the 26th January, 1895. It was found, when picked up in the course of repair later on, to have been dragged down on to the shoal "middle ground" between the mainland and the island, and there flattened by moving ice. The damaged part was cut out and the cable replaced to the westward of the shoal. Communication was thus restored on the 20th May. This cable repair work was done by means of a steam tug procured at Windsor.

With a view to securing as far as possible an immunity from the recurrence of interruptions of the cable, due to vessels fouling it with their anchors, as has so frequently happened in past years; a notice as hereunder has been posted in all of the custom houses, post offices, canal offices, and the different headquarters of vessel men in the neighbourhood; and the result of its operation may perhaps afford a promise of its utility in other localities where the Government is maintaining a cable service:

### NOTICE TO SAILING MASTERS AND VESSEL MEN ON LAKE ERIE.

Attention is directed to the existenco of a submarine telegraph, connecting Pelee Island in Lake Erie with the mainland. The route of the telegraph cable is from Point Pelee, nearly parallel with the sand bar, for half the distance to the dummy light, thence south-westerly, passing slightly to the westward of the middle ground, to the North Point Lighthouse on Pelee Island.

Under Vic. 51, cap. 31, any one who wrongfully or by culpable negligence, breaks or injures a submarine cable, is liable to fine and imprisonment. In case, however, of accidental fouling with the cable, owners of ships or vessels who can prove having sacrificed an anchor in order to avoid injuring the cable, will be compensated therefor; if the claim for such compensation is supported by the evidence of the crew and covered by a declaration made to the proper authorities.

Where in any case damage has unavoidably been done to the cable with the object of saving life or limb or of preserving the vessel, the circumstance should be reported to the Superintendent of Government Telegraphs, Ottawa, promptly upon reaching port, in order to avoid the inconvenience of prosecution.

(Signed)

*Acting Superintendent.*

Government Telegraph Service,  
Public Works Department, Ottawa, Ont.

Early in the summer 360 24-ft. cedar poles, 6 inches in diameter at the top, were procured from the mainland and distributed along the route of the line on Pelee Island, for the purpose of replacing the now decayed oak poles that were used in the original construction. This work of re-poling is being done gradually by the local lineman with assistance as needed.

#### NORTH-WEST.

The lines in the North-west, Qu'Appelle to Edmonton and Moose Jaw to Wood Mountain, have been maintained in satisfactory working order during the year.

As a result of an inspection made, as mentioned in last year's report, with a view to ascertaining the requirements for pole renewals on the Qu'Appelle-Edmonton line, arrangements were made for the delivery at convenient points of several small lots of cedar and tamarack poles—aggregating in all 52 of cedar for the Qu'Appelle-Humboldt section, and 368 of tamarack for the Humboldt-Edmonton portion of the line—the whole to be distributed and placed where needed, by the several linemen stationed along the route, in the course of the season when the usual general repair trips were being made. It is expected that with these renewals the line will be maintained in good order for a considerable period.

In the last annual report mention was made of the collection of material from the disused Prince Albert line. As there was no immediate prospect of its being utilized in this district, it was decided to send this material along with some other spare wire and insulators on hand since the construction of the present Qu'Appelle-Edmonton line, to British Columbia, to be made use of there in a line now under construction. What spare material is now on hand in the North-west, comprises only a reasonable reserve for maintenance purposes.

#### BRITISH COLUMBIA.

The coast line, Victoria to Carmanah and Cape Beale, was maintained under the conditions defined in the last annual report. The service was upon the whole more reliable and satisfactory than had been found possible to make it in previous years, owing to the existence of so many obstacles in the way of the linemen.

The office at Cape Beale was closed in November in consequence of a change of lightkeepers, the former operator going away and there being no one available for the duties.

[Note.—A member of the present keeper's family has since become qualified for the office and it was re-opened on the 3rd September, 1895.]

On the Barkerville line, the poles were found on inspection to be generally in need of resetting and overhauling. An appropriation for this purpose was obtained last session and the work is being performed by day labour, under the direction of the district superintendent.

A branch line from Ashcroft via Hat Creek Valley to Lillooet, 62 miles, provided for in the estimates for this year, has been contracted for with Mr. W. H. Keatley; he to supply the poles and build the line, the department to furnish the wire insulators, etc. The work of construction is now under way.

An office with agent and operator on salary has been established at 150 Mile House, about midway between Bridge Creek and Soda Creek, on the Barkerville line, to afford needed facilities for the business that is being done in connection with mining operations in that neighbourhood; and as an aid to a private company engaged in mining in the vicinity of the Quesnelle River the use of the telegraph poles for a distance of 14 miles has been allowed for the suspension of a telephone wire connecting the telegraph office at Quesnelle with the company's offices at the river.

The Comox line has been maintained in the same manner as heretofore.

A line to Alberni, from the junction of the Comox and Alberni roadways, a distance of 29½ miles, for which provision was made in this year's estimates, was constructed by day labour under, the direction of the department's resident engineer.



## Department of Public Works.

The poles used in the construction (947 of 25 ft. cedar, 6 inches diameter at top) were supplied and distributed under contract by Mr. J. Belyea. The line was completed on the 27th June, with offices opened at Alberni and Parksville (the junction of the roadways.) It is operated as a branch from Parksville, established as a repeating office on the Nanaimo-Comox circuit.

### SERVICE GENERALLY.

In pursuance of a decision given by the Honourable the Minister in June last in respect of the vacancy caused by the regretted death of the late superintendent, a circular was issued to the staff of the service as follows:—

[Circular.]

### GOVERNMENT TELEGRAPH SERVICE.

DEPARTMENT OF PUBLIC WORKS,  
DOMINION OF CANADA.

By order of the Honourable the Minister of Public Works, the district superintendents, agents and employees of the telegraph service, and all others concerned, are hereby advised of the appointment of Mr. D. H. Keeley, to the position of general superintendent, the duties of which office have been discharged by him since the service was deprived of its former chief officer in the death of the late Mr. F. N. Gisborne, which occurred on the 29th August, 1892.

E. F. E. ROY,  
*Secretary.*

OTTAWA, Ont.,  
4th June, 1895.

## REVENUE AND EXPENDITURE.

The revenue and expenditure figures for each of the lines in the several districts hereinbefore mentioned are given in the following table:—

Telegraph Service.	Expenditure.	Revenue.	Remarks.
	\$ cts.	\$ cts.	
Lower St. Lawrence and Maritime Provinces:—			
Anticosti Island lines.....	2,277 04	325 72	Signal Service messages, Meteorological Service messages and reports, and Fisheries bulletins are handled free of tolls.
Bay of Fundy do.....	3,015 32	405 13	
Cape Ray do.....	250 00	Nil.	
Cape Sable do.....	688 45	13 62	
Cheticamp do.....	777 86	411 51	
Escuminac do.....	656 32	171 51	
Low Point agency.....	50 00	420 41	
Magdalen Island lines.....	2,311 68	832 00	
Meat Cove do (including St. Paul's Island).....	2,075 60	955 90	
North Shore St. Lawrence (East of Bersimis).....	5,088 75	1,584 21	
do do (West of Bersimis).....	3,712 40	406 22	
Quarantine line.....	1,068 92		
SS. "Newfield's" services.....	2,500 00		
Subsidies, stationery, line and office material, cable repairs and contingencies chargeable to the appropriation for Gulf lines.....	668 16		
	24,140 50	5,526 23	
Ontario: Pelee Island line.....	1,603 79	127 12	
North-west telegraph lines.....	14,139 42	1,771 62	
British Columbia: Comox line.....	1,871 30	906 59	
*Barkerville line.....	3,339 51		
*Cape Beale line.....	4,784 01		
Total.....	49,878 53	8,331 56	

\* The company operating these two lines retains the revenue and the Government reimburses them the excess of expenditure over revenue.

D. H. KEELEY,  
General Superintendent.

OTTAWA, 3rd December, 1895.

GOVERNMENT TELEGRAPH SERVICE,  
NEWFOUNDLAND TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distances.	Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	Port au Basque.....	Miles. 0	.....	\$ cts. 50 00 or com'n.....	.....	N. B.—The commission is 25 per cent upon all business to and from the office; said commission guaranteed not to be less than at the rate of \$50 per annum.
2	Cape Ray Lighthouse.....	14	.....	50 00 do ..	.....	
	Totals . . . . .	14		100 00 do ..		

221 N. B.—The above short line is constructed in connection with the Signal Service, and connects at Port au Basque with the land line system of the Anglo-American Telegraph Company.

GOVERNMENT TELEGRAPH SERVICE—Continued.

ANTICOSTI TELEGRAPH SYSTEM.  
ANTICOSTI ISLAND SERVICE.

No.	Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	*Fox Bay .....	Miles. 0	J. Stubbert. ....	\$ cts. 50 00 or com'n	Nov. 1, 1888.	The commission is 25 per cent on all business to and from the office in each instance ; and commission guaranteed not to be less than at the rate of \$50 per annum.
2	Heath Point Lighthouse.....	23	T. Gagné.....	50 00 do	July 20, 1881.	
3	South Point Lighthouse.....	32½	A. Nadeau.....	50 00 do	Oct. 1, 1888.	
4	*Shallop Creek.....	17½	B. Bradley.....	50 00 do	July 7, 1881.	
5	Salt Lake.....	52½	(J. Carbray, repairer.....	365 00 do	do 1, 1891.	General repairer. Plus \$1 per day when absent on duty.
6	South-west Point Lighthouse.....	15	(N. Carbray, operator.....	50 00 do	Sept. 1, 1892.	Chief operator since 1st August, 1882.
			(Miss G. Pope.....	420 00 do	Oct. 18, 1880.	District superintendent. Plus \$1 per day when absent on duty.
			(H. Pope.....	200 00 do	July 21, 1893.	
7	Jupiter River.....	7	.....	50 00 do	.....	
8	Otter River.....	17½	.....	50 00 do	.....	
9	*Beccarie River.....	22	M. Duguay.....	50 00 do	Oct. 1, 1886.	†The line was shortened by 5 miles between Ellis Bay and West Point in 1893.
10	Cape Eagle (Ellis Bay).....	10	.....	50 00 do	.....	
11	West Point Lighthouse.....	9	A. Maoun.....	50 00 do	Aug. 1, 1881.	
12	*English Bay.....	3	F. Cabot.....	50 00 do	July 1, 1882.	NOTE.—A special allowance for maintenance of office \$50 per annum, has been added to the commission for offices marked*, since September, 1887.
13	Mechastic Bay.....	14½	.....	50 00 do	.....	
	Totals .....	223½		1,535 00 do		

South-west Point connects with l'Anse à Fougère, Gaspé, by cable 44½ knots ; and from Mechastic Bay connection is made with Long Point of Mingan by cable 21 knots.

GASPÉ SECTION.

1	l'Anse à Fougère.....	.....	N. Bernier.....	17 00	.....	Special allowance for the cable terminus. A testing station only.
2	Gaspé Basin.....	28	J. J. Annett.....	240 00	Oct. 16, 1881.	Transfer office. Connection with G. N. W. telegraph system.
		28		257 00		

Department of Public Works.

MAGDALEN ISLANDS TELEGRAPH SYSTEM.

MAGDALEN ISLANDS SECTION.

Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1 Amherst.....	Miles. 0	Miss J. Shea.....	\$ cts. 50 00 or com'n	Oct. 1, 1882.	The commission is 25 per cent on all business to and from the office in each instance; said commission guaranteed to be not less than at the rate of \$50 per annum.
2 Amherst Lighthouse.....	9	Wm. Cornier.....	50 00 do	June 11, 1881.	
3 Etang du Nord village.....	15	(P. Pelletier.....	400 00 do	Dec. 1, 1891.	
4 Etang du Nord lighthouse.....	1	(Mrs. A. Binet.....	50 00 do	Sept. 1, 1891.	Two-wire loop line.
5 Grindstone Island.....	8	N. Arsenault.....	50 00 do	Aug. 17, 1880.	Plus \$1 per day when absent on duty.
6 House Harbour (½ knot cable).	28½	(A. LeBourdais, D.Supt.	600 00 do	Sept. 15, 1893.	
7 Wolfe Island.....	11	(Miss E. LeBourdais, op.	50 00 do	June 1, 1888.	
8 Grosse Isle.....	11	P. L. Joncas.....	50 00 do	June 1, 1888.	
9 Grand Entry.....	11	N. Clark.....	200 00 and do	Feb. 18, 1882.	
Totals.....	83½	Mrs. F. Atkins.....	50 00 or do		
			1,550 00		

GOVERNMENT TELEGRAPH SERVICE—Continued.

MAGDALEN ISLANDS TELEGRAPH SYSTEM.

CAPE BRETON SECTION.

Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1 Meat Cove (Cable Station).....	Miles. 0	A. B. McDonald.....	\$ cts. 500 00	Nov. 7, 1880.	The commission is 25 per cent upon all business to and from the office in each instance; said commission guaranteed to be not less than at the rate of \$50 per annum.  NOTE.—This line is at present operated and maintained by the Western Union Telegraph Company, but at the cost of the Government.  Construction of this loop line completed June, 1895.
2 Aspy Bay.....	10½	I. Y. Nichols..... V. Theriault.....	50 00 or com'n.	July 1, 1894	
3 White Point (7¼ miles, loop).....	14½		50 00 do	June 15, 1895	
4 Neil's Harbour. (½-way house. loop line.....)	14½	M. McLeod.....	50 00 do	April 1, 1887	
5 Ingonish, North Bay.....	9		50 00 do	do 1, 1882	
6 South Ingonish.....	10½	F. C. Brewer..... John McDonald.....	50 00 do	Aug. 1, 1891	
7 French River (¾ knot cable).....	23		50 00 do	April 1, 1889	
8 Englishtown (¾ knot cable).....	11	W. Bingham (agent)..... W. J. McRitchie (rep't).....	50 00 do	July 19, 1882	
9 South Gut, St. Ann's (on loop).....	5		400 00 do	May 1, 1894	
10 Baddeck (on loop).....	13	Miss C. Morrison..... D. Dunlop.....	50 00 do	April 1, 1884	
11 Englishtown (back on loop).....	18		50 00 do	Jan. 1, 1892	
12 Port Bevis (2½ miles, looped off Baddeck line).....	5	Miss M. C. Campbell..... Mrs. E. Livingston..... W. U. Tel. Co.....	Com'n. only	.....	
13 Kelly's Cove (N. Campbellton).....	6		50 00 or com'n.	April 1, 1885	
14 Big Bras d'Or (¾ knot cable).....	24		50 00 do	Jan. 1, 1889	
15 North Sydney.....	12½				
Totals.....	157½		1,450 00		

Meat Cove Station connects with the Magdalen Islands system by a cable to Old Harry Head 55 knots, and with St. Paul's Island by a cable of 20 knots. The latter is operated with telephones.

NOVA SCOTIA TELEGRAPH SYSTEM.

CAPE SABLE SECTION.

No.	Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		\$ cts.		
1	Barrington .....	0	W. U. Tel. Co.'s Agent..	50 00 or com'n.	Dec. 18, 1883.	The commission is 25 per cent upon all business to and from the office in each instance; said commission guaranteed to be not less than at the rate of \$50 per annum.
2	Newellton (including 1½ knots cable).....	11	Miss E. A. Smith.....	50 00 do ..	April 1, 1889.	
3	Cape Sable Island lighthouse (including 1½ mile cable).....	6¾	I. K. Doane.....	50 00 do ..	Dec. 18, 1883.	
	Totals.....	17¾		150 00		

EAST COAST SECTION.

N.B.—In connection with the Signal Service, a land line, 208 miles in length, was erected in 1881, between Canso and Halifax, for a bonus of \$16,000, and is maintained and operated by the Western Union Telegraph Company, without further cost to the Government.

GOVERNMENT TELEGRAPH SERVICE—Continued.

MABOU-CHEVICAMP, C.B., TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.				
1	Mabou .....	0	Mrs. M. McDonald .....	\$50 or commission	April 1, 1887.	The commission is 25 p. c. of the Government line tariff receipts, and is guaranteed to amount to not less than \$50 per annum. Where 50 p. c. commission is paid there is no guarantee as to amount.
2	Broad Cove .....	20	Mrs. Annie McLellan .....	do	March 1, 1892.	
3	S. W. Margaree .....	12	Angus Collins .....	Com'n 50 per cent.	do 3, 1893.	
4	Margaree Harbour .....	5	Mrs. M. A. McLennan .....	\$50 or commission.	April 1, 1887.	
5	N. E. Margaree (loop line wire) .....	10	Miss B. M. Ross .....	do	Jan. 1, 1889.	
6	Grand Etang .....	8	Joseph Doucette .....	Com'n 50 per cent.	April 23, 1893.	
7	Chevicamp .....	8	Mrs. M. Fiset .....	\$50 or commission.	do 1, 1887.	
	Totals .....	63				

CHATHAM-ESCUMINAC, N.B., TELEGRAPH SYSTEM.

1	Chatham .....	0	Great North-western Telegraph Co. ....	\$185 00 or com'n.		This amount is paid for supervision of the line and office accommodation at Chatham. The commission is 25 p. c. of the Government line tariff receipts in each instance, and is guaranteed to amount to not less than \$50 per annum.
2	Black Brook .....	5½	Miss M. Williston .....	50 00 do	March 1, 1885.	
3	Baie du Vin .....	15	Mrs. M. Brinner .....	50 00 do	Aug. 1, 1891.	
4	Lower Hardwicke .....	6	Mrs. A. Lewis .....	50 00 do	Sept. 1, 1885.	
5	Escuminac .....	3½	K. R. McLennan .....	50 00 do	Nov. 1, 1893.	
6	Point Escuminac lighthouse .....	12				
	Totals .....	42		\$435 00		



Department of Public Works.

BAY OF FUNDY, N.B., TELEGRAPH SYSTEM.

GRAND MANAN SECTION.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	<i>Long Eddy Cable Hut, to</i>	Miles.		\$ cts.		
1	Flagg's Cove..	3	Mrs. C. C. Seely (D. Supt.).....	420 00	Nov. 18, 1880.	The commission is 25 p. c. upon all business to and from the office in each instance; said commission guaranteed not to be less than at the rate of \$50 per annum. When 50 p. c. commission is paid there is no guarantee as to amount.
2	Woodward's Cove.....	6	W. A. Fraser.....	Com'n 50 per cent.	Feb. 28, 1893.	\$25 per an. is allowance for repeating Whitehead br. Southern Head office closed 30th November, 1889.
3	Grand Harbour.....	2	F. A. Newton.....	\$75 00 or com'n.	April 1, 1887.	
4	Seal Cove.....	4½	P. Russell.....	50 00 do	May 1, 1891.	
5	Southern Head lighthouse.....	5½	A. Gilmon, repairer.....	50 00 do	.....	
	<i>Branch Line.</i>			60 00	Dec. 1, 1894.	
6	Grand Harbour.....	0	W. Cheney.....	Commiss'n 25 p.c.	Feb. 1, 1891.	
7	Cheney's Island (¾ knot cable)	4½	E. Carroll.....	\$50 00 or com'n.	Dec. 1, 1890.	
	Whitehead Island (¾ do )	1½				
	Totals.....	27½		755 00		

CAMPABELLO SECTION.

	<i>Liberty Cove Cable Hut, to</i>					
1	Welchpool.....	7½	M. A. B. Ison.....	100 00 or com'n.	May 1, 1890.	
2	Eastport, Maine, U.S.A.....	½	J. Cushing.....	100 00	Dec. 26, 1881.	
	Totals.....	8		200 00		

A cable of 1¼ knots connects Welchpool with the landing ¾ mile from Eastport; and a cable of 7¼ knots is laid from Long Eddy, Grand Manan, to Liberty Cove, Campobello.

GOVERNMENT TELEGRAPH SERVICE — *Continued.*  
 GROSE ISLE QUARANTINE TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	Quebec.....	Miles. 0	Great North-western Telegraph Co.	\$ cts. 185 00.....		This amount is paid for supervision of the line, and covers rent of pole line from Quebec to L'Ange Gardien, for which \$35 per annum is charged.
2	L'Ange Gardien. Orleans Island landing (cable). St. Pierre.....	13 $\frac{3}{4}$ 3 $\frac{1}{4}$	C. Turcott.....	50 00 or com'n.....	Mar. 1, 1885	The commission is 25 per cent of the Government line tariff in each instance, and is guaranteed to amount to not less than \$50 per annum. Ste. Pétronille office closed May, 1895.
3	Ste. Pétronille.....	4 $\frac{1}{2}$	M. Gobeil.....	50 00 or com'n.....	Sept. 15, 1888	
4	St. Laurent.....	6 $\frac{1}{2}$	P. Pouliot.....	50 00 do.....	July 1, 1888	
5	St. Jean.....	7	M. Emmond.....	50 00 do.....	Mar. 1, 1895	
6	St. François.....	6 $\frac{3}{4}$				
7	Isle Réaux (including 2 knots cable).....	3 $\frac{1}{4}$				
8	Isle Réaux (land line). Grosse Isle quarantine office (in- cluding 2 knots cable). Quarantine telephone system } 2-wire line.....	2 $\frac{1}{2}$ 3 $\frac{1}{2}$ 1 $\frac{1}{2}$	M. Langlois.....	50 00 do.....	Sept. 1, 1885	Note.—The telephone system on Grosse Isle since May, 1893, has comprised $\frac{1}{2}$ mile of 2-wire line, with 11 connections or stations.
	Total.....	52 $\frac{3}{4}$		435 00		

Department of Public Works.

CHICOUTIMI AND NORTH SHORE OF ST. LAWRENCE TELEGRAPH SYSTEM.

CHICOUTIMI SECTION.

Stations.	Inter-mediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Miles.		\$ cts.		
1 Bay St. Paul .....	0	F. Boivin. ....	50 00 or com'n*	Previous to April 1, 1885	The commission upon business is 25 per cent of the Government tolls of the line; the amount guaranteed to be not less than \$50 per annum.
2 St. Urbain.....	9	A. Boivin.....	50 00 do	do	
3 La Cruche .....	37	A. Gauthier (repairer).....	50 00 do	do	
4 St. Alexis .....	31½	O. Pelletier.....	420 00	May 15, 1887	
5 St. Alphonse de Bagotville .....	3	A. Sinard .....	50 00 or com'n.	Jan. 1, 1889	
6 Chicoutimi .....	11½	D. Bolly.....	50 00 do	April do 28, 1886	
Totals.....			720 00		

NORTH SHORE SECTION.

1 Murray Bay .....	0	Mrs. F. Vincent.....	50 00 or com'n {	Previous to April 1, 1885	Mr. Bouillenne at River Canard has acted as repeating operator for the St. Etienne branch since August, 1889.
2 Cap à L'Aigle.....	0	N. Duchesne.....	50 00 do	June 1, 1888	
3 Sts. Fidèle .....	6	A. E. Parent .....	50 00 do	April 1, 1890	
4 Port au Persil.....	7	A. Brassard .....	50 00 do	May 1, 1889	
5 St. Siméon.....	4	D. Gaudin.....	50 00 do	Dec. 1, 1887	
6 Baie des Rochers.....	12	G. Savard .....	50 00 do	June, 1886	
7 Riv. aux Canards } Loop Line.	17	G. Bouillenne.....	100 00 do	Nov., 1889	
8 St. Etienne.....		{ N. Caron (repairer).....	420 00	Sept. 1, 1888	
9 Tadoussac (1¼ knot cable) .....	13	J. E. Caron.....	50 00 or com'n.	Nov. 1, 1885	
10 Bergeronnes .....	15	M. Savard.....	50 00 do	April, do	
11 Escoumains.....	12	J. H. Topping .....	50 00 do	6, 1892	
12 Baie des Bacons.....	8	P. Bouchard .....	50 00 or com'n.	May 1, 1885	
13 Mille Vaches.....	8	J. A. Puisse.....	50 00 or com'n.	April, 1894	
14 Portneuf Mills .....	11½	P. O. Bonenfant .....	50 00 or com'n.	May 1, 1890	
15 Portneuf light .....	6	S. Bouchard .....	420 00	July 1, 1888	
16 Sault au Cochon .....	7	E. Courbron (repairer).....	50 00 or com'n.	April 1, 1887	
17 Besiamits.....	31	J. Forrest .....	50 00 do	Dec. 1, 1887	
		R. H. Montgomery.....	50 00 do	Oct. 1, 1889	

GOVERNMENT TELEGRAPH SERVICE—Continued.

CHICOUTIMI AND NORTH SHORE OF ST. LAWRENCE TELEGRAPH SYSTEM—Concluded.

NORTH SHORE SECTION—Concluded.

Stations.	Inter- mediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Miles.		\$ cts.		
18 Pointe aux Outardes (cab).....	12	A. Lausier.....	500 00 per annum	May 21, 1893	
19 Pointe Paradis, Manicouagan.....	18	N. A. Comeau.....	50 00 or com'n.	Oct. 15, 1883	
20 River Godbout (cable).....	26	L. F. Fafard.....	50 00 do	Dec. 28, 1883	
21 Pointe des Monts.....	18½	Z. Poulin.....	50 00 do	May 16, 1884	
22 Trinity Bay West.....	5½	A. Bilodeau.....	Accommodation of	do	
23 Trinity Bay East.....	2½	I. Comeau.....	do	Sept. 1, 1889	
24 Caribou Islands.....	7	E. H. Tétu, D. Supt.....	90 00 per month.	Nov. 1, 1891	
25 Pentecost River.....	17	A. Therrault.....	180 00 per annum	July 1, 1888	
26 St. Marguerite.....	47½	P. E. Vignault, opr.....	180 00	Jan. 2, 1884	
27 Seven Islands.....	22½	F. Gallienne, lineman.....	540 00	April 22, 1890	Plus 50 cents per day when absent on duty.
28 River Moisie.....	15½	D. Porlier.....	50 00	May 1, 1885	
29 Shelldrake.....	72	P. Touzel.....	50 00 or com'n.	Nov. 1, 1888	
30 Thunder River.....	6½	H. LeBrun.....	50 00 do	Feb. 1, 1890	
31 Magpie.....	14	Geo. Molloy.....	50 00 do	Oct. 1, 1889	
32 St. John's River.....	9	B. Chambers.....	50 00 do	do	
33 Long Point.....	10	E. S. Vibert.....	360 00	Nov. 1, 1889	Long Point is the repeating office for the Anticosti cable
34 Mingan.....	7	M. J. Maloney.....	50 00 or com'n.	Oct. 1, 1888	in operation since September 1, 1891.
35 Pointe aux Esquimaux.....	24	D. Cormier.....	Com'n only.....	May 21, 1893	The commission at Point aux Esquimaux is 50 per cent, without guarantee as to amount.
Totals.....	496				

NOTE.—In the estimates the maintenance of the Chicoutimi and North Shore lines is provided under head of North Shore Line. They are operated conjointly.

Department of Public Works.

ONTARIO—PELEE ISLAND TELEGRAPH SYSTEM.

Stations.	Inter-mediate Distances.	Agents.	Salaries per Annum.	Date of Appointment.	Memo.
1 Leamington .....	Miles.		\$ cts.		
2 Club House .....	7	J. McR. Selkirk D. Supt.	50 00	Nov. 1, 1888.	
3 Point Pelee .....	5	C. Harrison .....	Comsn. 25 p.c.	April 1, 1889.	The commission is upon the receipts for the Government line.
Cable to Island .....	8½	W. A. Grubb .....	do	Nov. 1, 1888.	
4 North Point Lighthouse (½ mile loop) .....	1	J. E. Quick .....	\$500 00 and Com'n	Dec. 1, 1890.	North Point Lighthouse is the repeating office for the system.
5 North dock .....	1½	C. B. Quick .....	Comsn. 25 p.c.	Nov. 1, 1888.	
6 West dock .....	5	A. M. McCormick .....	do	do 1, 1888.	
7 South dock .....	4½	F. B. McCormick .....	do	do 1, 1888.	
Total .....	32¾				

This line is operated with telephones.

GOVERNMENT TELEGRAPH SERVICE—Continued.

LINES IN THE NORTH-WEST TERRITORY.

QU'APPELLE-EDMONTON SECTION.

No.	Stations.	Inter-mediate Distances.	Agents.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		\$ cts.		
1	Qu'Appelle.....	0	E. W. Warner.....	720 00	Jan. — 1883..	
2	Fort Qu'Appelle.....	17	Miss E. Johnston.....	600 00	Mar. 1, 1885..	
3	Touchwood.....	46	A. Von Lindeburg.....	600 00	Nov. 1, 1883..	
4	Humboldt.....	78				Humboldt office was closed 20th August, 1893.
5	Saskatoon (14 miles loop).....	69	C.P.R. Tel. Co's.....	300 00	Jan. 1, 1892..	
6	Henrietta.....	52	J. Harrington, repairer.....	600 00	Jan. 1, 1888..	
7	Battleford.....	47	W. Salsbury, repairer.....	720 00	Oct. 1, 1886..	
8	Fort Pitt.....	89	L. P. O. Noel.....	720 00	Apr. 15, 1890..	The repairer formerly stationed at Battleford was transferred to Humboldt, in November, 1892, and thence to Moose Jaw, in May, 1893.
9	Onion Lake.....	13	J. F. Lake, repairer.....	240 00	Aug. 1, 1891..	
10	Moose.....	32½	G. G. Mann, oper. & agt.....		Jan. 1, 1892..	Moose office was closed 30th Sept., 1894.
11	Saddle Lake.....	45	L. Picard, repairer.....	600 00	July 1, 1891..	
12	Victoria.....	37	W. C. Gillis, repairer.....	720 00	Jan. — 1887..	
13	Fort Saskatchewan.....	49	W. G. Ross, agent.....	Com. 2½ p. c.	Dec. — 1886..	
14	Edmonton.....	24	G. Voyer.....	300 00	Mar. 1, 1893..	The office at Edmonton has been operated jointly with the C.P.R. Tel. Co. since 1st January, 1892.
			W. McKay, repairer.....	720 00	May 1, 1886..	
15	Branch Line— *Edmonton..... St. Albert.....	0 9				*The St. Albert branch line is operated with telephones.
	Total.....	607½				

Department of Public Works.

NORTH-WEST TELEGRAPH LINES—WOOD MOUNTAIN AND FORT MACLEOD SECTION.

No.	Stations.	Inter- mediate Distances.	Staff.	Salaries per Annum.	Date of Appointment.	Memo.
1	<i>Fort Macleod Line—</i> Galt Junction.....	Miles. 0		\$ cts.		The Fort Macleod line has been leased to the North-west Coal and Navigation Co.
2	Lethbridge.....	107				
3	Macleod.....	28½				
4	Fort Macleod.....	½				
	<i>Wood Mountain Line—</i>					
1	Moose Jaw.....	0	f. A. Wilcox, agent..... (H. Sikes, repairer.....)	240 00 600 00	Dec. 1, 1891..... June 1, 1893.....	Moose Jaw office is operated jointly with the Canadian Pacific Telegraph Co.
2	Wood Mountain.....	90½	J. H. Thompson, agent..	180 00	Dec. 1, 1890....	
	Total.....	226½				

GOVERNMENT TELEGRAPH SERVICE IN BRITISH COLUMBIA.

ASHCROFT-BARKERVILLE.

Office.	Inter-mediate Distances.	Agents, etc.	Positions.	Salaries per Month.	Date of Appointment.	Memo.
	Miles.			\$ cts.		
Ashcroft Station	0	Canadian Pac. Ry. Co.				This line is operated by the Canadian Pacific Railway Co. for the Government, the arrangement being terminable at any time.
Cache Creek	4					
Clinton	53	A. LeBourdais	Agent and repairer.	50 00	Feb. 16, 1883.	
Bridge Creek	26	C. H. Tingley	do	60 00		
150-Mile House	40	W. Jamieson	Agent and operator	38 00	April 13, 1894.	
Soda Creek	38	J. D. McIntosh	Agent and repairer.	75 00		
Queenselle	54½	J. E. Bowron	do	47 00		
Stanley	48					
Barkerville	13	J. Stone	Agent and repairer.	83 33	Feb. 17, 1873.	
	276½					
<i>Branch.</i>						
New Westminster.						This line was leased for 99 years to Messrs. J. A. Laird-law and J. Wilson, on the 30th October, 1887.
Ladner's Landing (½-knot c'bl)	18					
Total	294½					

VICTORIA-CAPE BEALE.

Victoria	0	J. Wilson (Vancouver).	District Supt.	25 00	Dec. 23, 1891.	This line is operated by the Canadian Pacific Railway Co. for the Government, the arrangement being terminable at any time.
Otter Point	26	E. Houghton	Agent and operator	60 00	Nov. 1, 1891.	
Jordan River	10	E. Gordon	Agent and repairer.	60 00	Dec. 1, 1891.	
Port San Juan	30	L. Deebiens	do	55 00	Nov. 1, 1891.	
		J. W. Williams	do	60 00	Oct. 25, 1892.	
Carmanagh Lighthouse	24	W. P. Daykin	Agent and operator	20 00	Nov. 1, 1891.	
		E. B. Daykin	Repairer.	45 00	do 1, 1891.	
		R. McDonald	do	45 00	Sept. —, 1894.	
Cape Beale.	28					
Total	118			350 00		

Cape Beale office closed November 1894.



Department of Public Works

NANAIMO-COMOX.

Office.	Inter-mediate Distances.	Staff.	Positions.	Salaries or Commission.	Date of Appointment.	Notes.	
Nanaimo	Miles.						
Wellington	0	E. and N. Ry. Co.	Agents	Commission.	April 1, 1893.	The commission is 50 per cent of the tolls collected.	
Parksville	5	A. McMillan	Agent and operator	\$20 per m.	June 26, 1895.		
French Creek	20	C. R. Graves	Operator and repairer	65 do	do 1, 1893.		
Union (wharf)	32½	J. Dunsmuir	Agent	Commission.	do 1, 1893.		
do (mines)	10			do	do 1, 1893.		
Courtney	7			do	do 1, 1893.		
Comox	3½			do	do 1, 1893.		
<i>Branch Line.</i>							
Alberni (from Parksville)	29½	C. T. Haslam	Operator and repairer	\$50 per m.	do 1, 1895.		
Total	110½						

This line is operated by the Government through the office of the Resident Engineer at Victoria.

## GOVERNMENT TELEGRAPH SERVICE, 1895.

Location of Lines.	Points connected.	Land lines.	Cables.	Total.*
		Miles.	Knots.	
Newfoundland....	Port au Basque—Cape Ray.....	14		14
Nova Scotia.....	North Sydney—Meat Cove (with loops).....	156½		157½
do.....	do Across Bras d'Or Channel.....		½	
do.....	do do St. Ann's Harbour.....		¼	
do.....	do do Ingonish Harbour.....		¼	
do.....	Meat Cove—St. Paul's Island.....		20	23
do.....	do On St. Paul's Island.....	3		
do.....	Mabou—Cheticamp.....	63		63
do.....	Barrington—Cape Sable.....	16		17½
do.....	do Across Bear Point Channel.....		1½	
do.....	do do Lt. House Channel.....		¼	
New Brunswick..	Chatham—Escuminac.....	42		42
do.....	<i>Bay of Fundy System:</i>			
do.....	do Eastport—Campobello.....		1¾	44½
do.....	do On mainland Eastport.....	½		
do.....	do On Campobello Island.....	7½		
do.....	do Campobello—Grand Manan.....		7½	
do.....	do On Grand Manan Island.....	25½		
do.....	do Grand Manan—Cheney's Island.....		½	
do.....	do On Cheney's Island.....	¾		92
do.....	do Cheney's Island—Whitehead Island.....		¾	
Quebec.....	Bay St. Paul—Chicoutimi.....	92		92
do.....	Murray Bay—Point Esquimaux.....	456½		496
do.....	do Across Saguenay River.....		1¼	
do.....	do Bersimis to Manicouagan.....		12	
do.....	do Manicouagan to Godbout.....		26	52½
do.....	<i>Quarantine System:</i>			
do.....	do Quebec—L'Ange Gardien.....	13		
do.....	do L'Ange Gardien—Orleans Island.....		¾	
do.....	do On Orleans Island.....	29½		
do.....	do Orleans Island—Isle Réaux.....		2	
do.....	do On Isle Réaux.....	2½		
do.....	do Isle Réaux—Grosse Isle.....		2	
do.....	do On Grosse Isle (all told).....	3½		
do.....	<i>Anticosti System:</i>			
do.....	do Gaspé—L'Anse à Fougère.....	28		316½
do.....	do L'Anse à Fougère—Anticosti.....		44½	
do.....	do On Anticosti Island.....	223½		
do.....	do Anticosti—Long Point, Mingan.....		21	
do.....	Meat Cove (C. B.)—Magdalen Islands.....		55	138½
do.....	do On Magdalen Islands.....	83	½	
Ontario.....	<i>Pelee Island System:</i>			
do.....	do Leamington—Point Pelee.....	12		32½
do.....	do Point Pelee—Pelee Island.....		8½	
do.....	do On Pelee Island.....	12		
North-west..	Qu'Appelle—Edmonton and St. Albert.....	607½		607½
do.....	do Moose Jaw—Wood Mountain.....	90½		90½
British Columbia.	Ashcroft—Bakerville.....	276½		276½
do.....	do Victoria—Cape Beale.....	118		118
do.....	do Nanaimo—Comox and Alberni.....	110½		110½
	Totals.....	2,486½	206½	2,692½

\*For convenience in totalling, the knots of cable are regarded as statute miles.

Department of Public Works.

APPENDIX No. 13.

---

# NATIONAL ART GALLERY

CURATOR'S REPORT

FOR THE FISCAL YEAR ENDED 30<sup>TH</sup> JUNE, 1895



Department of Public Works

APPENDIX No. 13.

NATIONAL ART GALLERY.

OTTAWA, 20th November, 1895.

SIR,—I have the honour to report that the following additions to the gallery have been made during the fiscal year ending 30th June, 1895.

Oil painting, "At the gravel pits" near Toronto, diploma picture, by Wm. Cruickshank, R.C.A. This painting was handed over to the gallery in compliance with the Act of incorporation of the Royal Canadian Academy.

Oil painting, "A Venetian bather" by the late Paul Peel, R.C.A. This picture was purchased by the Government at a cost of \$600.

During the fiscal year 19,146 visitors have registered their names—an increase of nearly 6,000 over the number of visitors in the preceding year.

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

JOHN W. H. WATTS,  
*Curator.*

E. F. E. ROY, Esq.,  
Secretary, Department of Public Works,  
Ottawa.



Department of Public Works.

APPENDIX No. 14

---

# OFFICIAL CORRESPONDENCE

DEPARTMENT OF PUBLIC WORKS

FROM 1st JULY, 1867, TO 30th JUNE, 1895





# Department of Public Works.

## APPENDIX No. 14.

### OFFICIAL CORRESPONDENCE.

**LETTERS Received and Sent from 1st July, 1867, to 30th June, 1895.**

Years.	Received.	Sent.
1867—From 1st July to 31st December.....	2,075	1,511
1868 do 1st January to 31st December.....	3,498	2,317
1869 do do do.....	3,448	2,171
1870 do do do.....	4,961	3,185
1871 do do do.....	6,268	3,983
1872 do do do.....	8,333	4,428
1873 do do do.....	10,072	5,707
1874 do do do.....	9,800	5,043
1875 do do do.....	9,006	5,006
1876 do do do.....	7,971	4,773
1877 do do do.....	7,517	4,425
1878 do do do.....	6,886	4,021
1879 do do to 6th October.....	7,186	4,547
1879 do 7th October to 31st December.....	2,033	810
1880 do 1st January do.....	8,451	4,410
1881 do do do.....	9,599	5,529
1882 do do do.....	10,505	5,699
1883 do do do.....	11,633	6,227
1884 do do do.....	13,114	6,903
1885 do do do.....	8,977	5,321
1886 do do do.....	9,644	5,352
1887 do do to 30th June.....	4,866	2,735
1887 do 1st July do 1888.....	10,493	6,343
1888 do do do 1889.....	10,522	7,042
1889 do do do 1890.....	10,098	7,448
1890 do do do 1891.....	10,576	7,286
1891 do do do 1892.....	11,637	6,700
1892 do do do 1893.....	11,720	6,220
1893 do do do 1894.....	9,517	6,028
1894 do do do 1895.....	10,190	5,148

**NUMBER of Cheques sent by Accountant's to Secretary's Branch and Mailed, from 1882 to 1895.**

Year.	No.
1882.....	1,566
1883.....	3,366
1884.....	3,298
1885.....	3,466
1886.....	4,198
1887.....	4,692
1888.....	4,960
1889.....	4,819
1890.....	5,376
1891.....	5,400
1892.....	7,174
1893.....	7,792
1894.....	8,745

## CHEQUES issued by Finance Department and Mailed from Secretary's Branch.

Year.		No.
1885.....	From 1st April to 30th June, 1885.....	245
1885.....	do 1st July do 1886.....	954
1886.....	do do do 1887.....	1,158
1887.....	do do do 1888.....	918
1888.....	do do do 1889.....	887
1889.....	do do do 1890.....	908
1890.....	do do do 1891.....	790
1891.....	do do do 1892.....	820
1892.....	do do do 1893.....	822
1893.....	do do do 1894.....	868
1894.....	do do do 1895.....	594

## LETTERS Received and Sent, Chief Architect's Office, from 1st January, 1880, to 30th June, 1895.

Years.	Received.	Sent.
1880—From 1st January to 30th June.....		1,273
1880 do 1st July do 1881.....		2,943
1881 do do do 1882.....		2,859
1882 do do do 1883.....	3,538	4,600
1883 do do do 1884.....	3,860	6,004
1884 do do do 1885.....	4,500	6,718
1885 do do do 1886.....	6,075	6,450
1886 do do do 1887.....	6,816	6,380
1887 do do do 1888.....	6,947	6,870
1888 do do do 1889.....	6,484	7,667
1889 do do do 1890.....	7,448	6,578
*1890 do do do 1891.....		7,751
1891 do do do 1892.....	6,113	4,260
1892 do do do 1893.....	7,428	6,453
1893 do do do 1894.....	6,900	†4,517
1894 do do do 1895.....	7,538	†5,327

\* The exact number of letters received cannot be accurately given, but would bear about the same proportion to letters sent as last year.

† The decrease in the number of letters sent, is due to a change made on 1st January, 1894, in the manner of transmitting accounts to the secretary. Previous to that date a letter accompanied each account, but now a bundle of accounts goes with each letter.

## LETTERS Sent from Chief Engineer's Office, from January, 1880, to 30th June, 1895.

Year.		No.
1880.....	From 10th January to 30th June.....	418
1880.....	do 1st July do 1881.....	1,795
1881.....	do do do 1882.....	2,352
1882.....	do do do 1883.....	2,651
1883.....	do do do 1884.....	3,611
1884.....	do do do 1885.....	3,119
1885.....	do do do 1886.....	2,867
1886.....	do do do 1887.....	3,281
1887.....	do do do 1888.....	3,552
1888.....	do do do 1889.....	4,229
1889.....	do do do 1890.....	3,374
1890.....	do do do 1891.....	3,948
1891.....	do do do 1892.....	4,009
1892.....	do do do 1893.....	4,232
1893.....	do do do 1894.....	3,966
1894.....	do do do 1895.....	4,603

NOTE—The letters, including returns, received in the Chief Engineer's Office may be estimated at the rate of two received to one sent.

Department of Public Works.

APPENDIX No. 15

---

TEREDO NOTES

BY

E. T. P. SHEWEN

RESIDENT ENGINEER DEPARTMENT OF PUBLIC WORKS

AT

ST. JOHN N. B.



APPENDIX No. 15.

TEREDO NOTES

BY E. T. P. SHEWEN, RESIDENT ENGINEER OF THE PUBLIC WORKS  
DEPARTMENT AT ST. JOHN, N. B.

(READ BEFORE THE NATURAL HISTORY SOCIETY OF NEW BRUNSWICK.)

Two inveterate enemies of timber are found in the waters of the maritime provinces, viz., the limnoria and the teredo, familiarly known as the nipper (or gribble) and the borer. Both are eminently destructive, but the depredation committed by the latter, being concealed until far advanced, is more dangerous than the manifest devastation of the former. For those who have never investigated the subject, it is difficult to realize either the extent of the damage inflicted, or the rapidity with which havoc is wrought among marine works by the unbuilding teredo.

The accompanying specimens of worm-eaten wood are from the coasts of Northumberland Strait, where they have remained in the tide-way from two to three years, a life comparatively long in those waters. In their present dry state, the actual flaccid condition of timber structures bored by this worm can scarcely be appreciated, for when first cast ashore, pulpy and sodden, these sieve-like sections were susceptible after the manner of sponge, to compression by the hand. Remembering this, it may be understood how readily piers and breakwaters, weakened by the borer, are knocked to pieces by the waves. The specimens exhibited were not detached piles, but the face-timbers, 12 inches square, of a work, securely bolted together tier upon tier, forming a solid wall with only one side exposed.

Unfortunately, the teredo carries on the work of demolition at even greater speed than was applied in this instance. Hemlock timbers, also a foot square, which had remained in the water at the same place, some for 12, some for 17 months, were found to be so thoroughly destroyed as to be easily penetrated through the side to a depth of 9 inches by simple pressure of the point of a walking-stick. Except at the ends, these timbers viewed casually, presented no unusual appearance; but when stepped upon, revealed by collapse of the deceptive surface, the utter ruin beneath. Closely examined, the outside seemed pierced by pin-holes gradually expanding towards the heart of the wood into tunnels the size of a pencil. At the same place, spruce piles 10 or 12 inches in diameter, driven early in July, came ashore out off by the teredo, on the 3rd November following. In another example, timbers of the size already mentioned, had been reduced in width to six, and even five inches. In this case, the up and down bolts, driven at mid-breadth to fasten the tiers together, were bared, the surrounding wood having been entirely eaten away.

Either in the form of spawn, or soon after emerging from that stage, the teredo possesses the power of attachment to timber, and in less than two weeks is capable of pricking a small hole for entry. Once within, the progress of growth is attested by the gradual enlargement of the tunnel, until a diameter of perhaps three-eighths of an inch is attained in hardwoods. As growth proceeds, the necessity of boring to avoid being pinched is obvious. It is believed that the teredo draws nourishment from minute organisms in the water, the timber representing, not food but habitation.

In New Brunswick, the teredo infests the whole coast bordering on Northumberland Strait. In length it varies from one and a half to four inches, increasing as the facilities for boring, or breeding are multiplied. In one place, before a contemplated

work was begun, none were found to exceed the smaller size mentioned. After the work had been finished, the worms appeared in infinitely greater numbers, and attained double the former length. Apart from the extended accommodation thus provided by the large quantity of timber brought within reach of the teredo, doubtless the eddies, slackwater, and lee, formed by the projection of the work from the land across the current, were also favourable to development, the temperature rising in the still water.

The light-coloured, shell-like head of the teredo is somewhat globular in form, open in front, and lipped after the fashion of an auger. With this apparatus, it is supposed the work of destruction is done. The soft white body apparently receives protection from a fragile tube frequently found lining the tunnels. The vertical working range lies between the bottom and half tide, but specimens may be met in wood above that level. Destructive power is greatest when the temperature of the water is high, that is from the middle of July to the end of August, or a little later. By October the worm is less inclined to attack new timber, but whether autumnal inactivity becomes absolute dormancy in the winter is not positively known. It is believed that the teredo has one enemy, (*Lycoris fucata*) which also preys upon the pholas.

Experiments made in Northumberland Strait with pieces of pine, spruce, hemlock, birch, beech, and maple treenailed together, and exposed at low water mark from October to December, showed no trace of the worm when taken up. Another raft, similar to the last, but lacking the birch, placed under the ice on the 7th of February, was found after 77 days' immersion to be untouched also. Since these timbers were in contact with ice, the experiments do not conclusively establish torpidity in the cold months, for it is possible that in deeper water the worm may work during the winter. It would be interesting to know whether, in timbers between half-tide and low water, the worms are killed by frost. On the 20th of April following, the first raft was replaced in the water, and suffered to remain undisturbed until the 29th of October, a period of 192 days.

Upon examination, it was discovered that the pine and spruce had been demolished, only a portion of the sticks being left. The hemlock, while preserving the original outward form, had become a mere honeycomb, and the hardwoods were much in the same condition as the hemlock. In fact all the timbers were destroyed. When the rafts were carefully taken apart, it was found that teredines did not, as popularly reputed, invariably hold inviolate each others tunnels, but bored capriciously in every direction; that is to say, with the grain, directly across, or obliquely across it. More than this, there were instances in which they had bored from one stick into another below placed transversely to the first, the tunnel continuing across the seam. In such cases the timbers were hard up, without any film of water between, being tightly drawn together by the treenails. Of course, if the second timber had not been quite close to the first, it would have been entered by other worms through the intervening water. In several examples, the tunnels ran without interruption from the timbers through the treenails.

Near the close of the paper in Bulletin No. 8 (Natural History Society) upon the Mollusca of Acadia, it is suggested that since foul or brackish water is avoided by the teredo, the fact might be turned to practical account. One difficulty in the way of utilizing either, lies in the differing density of fresh and salt water. An apt illustration occurred at one of the Cape Breton coal mines. Some of the pit-water, strongly impregnated with iron, sulphurous, and otherwise unsavory, was discharged immediately alongside the colliery shipping-pier. For some time it was thought that the water conferred complete protection, for the timbers of the pier, highly coloured by it, showed no trace of the teredo. Later, it was discovered, by failure of the cribwork deeper down, that the stratum of red water ceased a few feet beneath the surface, and that in the pure salt water below, the worm flourished.

The Dutch commission referred to in Bulletin No. 8, was appointed in 1857, and began two years afterwards a series of careful experiments lasting for a period of years. The valuable result of the labours of that commission, reported in the

## Department of Public Works.

Popular Science Monthly for August and September, 1878, by Dr. E. H. Von Baumhauer, one of the members, represents the most reliable information extant upon the subject. Briefly, it showed that no mechanical protective application was of real service, and that only impregnation with creosote afforded immunity from attack of teredo or limnoria. In the use of creosote, it was found that two points were essential to success: (1) the oil must be of proper quality, (2) the process of impregnation must be thoroughly performed.

Considering No. 2 first, it may be said that the most approved process is that of Mr. S. B. Boulton, in which advantage is taken of the difference between the boiling point of water (212 F.) and of creosote (say 400 F. as a minimum) to evaporate all the sap and moisture in the timber by wet heat, and so to make with certainty room for the oil without injury to the fibres. At 250 degrees F. the woody fibre of timber begins to be decomposed, and the pyroligneous acids are distilled. At less than 212 degrees, evaporation of the moisture will not take place, hence attention to the thermometer in the conduct of the process is imperative. The creosote is introduced into the cylinders containing the timber to be treated at a temperature between 212 and 230 degrees. The sap thus vaporized rises to the surface, is drawn off through the dome by the vacuum pump, led to a condenser, and finally to a receiver where it may be measured. The creosote of course flows into the empty pores, but to make assurance doubly sure, the pressure pumps are put on up to 130 pounds per square inch.

Creosote is produced by simple distillation of tar, the mother of most of the commercial by-products of coal. The lighter oils, from which dyes, drugs, etc., are extracted by subsequent treatment, come over first, the creosote last, while a residue of pitch is left behind. The best creosote, known as London Oil, sp. g. about 1.055, is derived from Newcastle coal, through tar obtained by coking at high temperature. Since the preservative action of the oil is two fold, viz., chemical in the antiseptic sense, and mechanical in excluding the entrance of fresh germs by closing the pores, the specific gravity and the constituents become of the utmost importance. It is essential that as few as possible of the latter, should be either volatile below 600 F. or soluble in water. Wood creosote is of no use for marine purposes.

The substances eliminated by destructive distillation of coal are almost innumerable. Although results vary somewhat with the different measures, one ton of coal, 2,240 pounds, worth from 90 cents to \$1.75 at the pit-mouth, usually yields for first results, besides ammoniacal liquor and illuminating gas, 1,200 pounds of coke worth \$3.60 to \$4 per ton, and 12 gallons of coal tar. Broadly speaking, the twelve gallons of coal tar give upon distillation:

Light oils.....	1 to 1.5 gallons
Creosote and anthracene.....	3 to 4 do
Pitch, the residue.....	6 to 7 do

These quantities fluctuate according to the time allowed for the different runnings, and the quality of the tar.

Although the value of creosote as a preservative is well known, and it is likely to be in request provided the oil can be placed in the market at a price sufficiently low to encourage the use, coal tar is not at present distilled in Canada. The undertaking should be feasible, since the oil is only one of many results from a single operation. In fact the production can be combined with manufacture of the almost infinite extracts obtained from the light oils given off before the creosote is reached. Besides, for the residue, pitch, now altogether imported, there is ready market even after the local requirements for use in artificial asphalt, roofing and other purposes are satisfied. On account of the growth of the oriental market for the patent fuel made at Cardiff by compressing culm into bricks, the demand at that port for pitch, one of the ingredients, exceeds the supply, notwithstanding the price, 27 shillings per ton, recently offered.

In making creosote and the other by-products of coal, the residue when all is over, consists of pitch equal to one-half, and sometimes two-thirds of the original quantity of tar placed in the still. An enterprise in which a residual product can

be shipped at good profit appears to offer advantages worthy of consideration. Yet near New Glasgow, where 125 tons of coke are sometimes made daily, by burning 250 tons of coal, the ovens are not constructed to save the tar, about three thousand gallons being, as it were, wasted every day when coke is made. The maritime provinces, abounding in coal said to resemble in composition the Newcastle seams, present a field so eminently suitable for manufacture of the by-products, that the establishment of an industry capable of indefinite expansion can only be a question of time.



Department of Public Works.

APPENDIX No. 16

---

DETAILED STATEMENT OF EXPENDITURE

ON ACCOUNT OF

REPAIRS, Etc.

TO

PUBLIC BUILDINGS, CANADA

For the Fiscal Year ended 30th June, 1895

BY

O. DIONNE, Esq., ACCOUNTANT





APPENDIX No. 16.—Expenditure on account of "Public Buildings, Repairs," &c.—Continued.

No.	NAME OF BUILDING.	Repairs.										Total for repairs.	Wages.	Rents.	Furniture, carpets, &c.	Maintenance of buildings, &c.	Grand Total.	No.												
		Hardware, metal work, plumbing, &c.	Repairing roofs, chimney tops, &c.	Lumber, &c.	Brick and stone-work, plastering, &c.	Painting, glazing, &c.	Extraordinary repairs.	Travel, expenses, telegrams, &c.	Sundries.	Total for repairs.	Sundries.																			
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.									
	Brought forward.																													
	Quebec—Concluded.																													
18	Quebec exam. warehouse	142	90																				164	72	18					
19	" observatory																								11	67	19			
20	" post office	60	15																							525	00	20		
21	" Queen's wharf buildings	65	60																								65	60	21	
22	Rivières du Loup (Fraser-ville) post office.	196	30																								60	05	22	
23	Sherbrooke post office.	9	17																								1,766	21	23	
24	Sorel "	387	80																								9	17	24	
25	St. Henri "	36	00																								1,424	93	25	
26	St. Hyacinthe "	56	10																								242	07	26	
27	St. Jérôme "																										194	25	27	
28	St. John's "																										144	74	28	
29	Three Rivers custom-house.																										1,750	54	29	
30	Three Rivers post office.	32	00																								688	19	30	
31	Valleyfield "	393	55																								343	90	31	
32	West Farnham "																											461	70	32
33	Public buildings generally, Quebec																											417	57	33
	Totals for Quebec	2,058	99	1,722	11	50	00	260	05	1,829	80	845	48	632	59	1,803	76	9,202	78	1,474	68	461	70	1,725	16	3,319	01	16,183	33	

\* Final estimate paid to Viau & Lachance.



APPENDIX No. 16.—Expenditure on account of "Public Buildings, Repairs," &c.—Continued.

No.	NAME OF BUILDING.	REPAIRS.										Total for repairs.	Wages.	Rents.	Furniture, carpets, &c.	Maintenance of build-ings, &c.	Grand total.	No.		
		Hardware, metal work, plumbing, &c.	Repairing roofs, chimneys, &c.	Lumber, &c.	Brick and stone work, plastering, &c.	Painting, glazing, &c.	Extraordinary repairs.	Travelling expenses, telegrams, &c.	Sundries.	Total for repairs.	Wages.									
	Brought forward.....																			
	Ontario—																			
44	Port Hope post office.....	30 73	10 25	1,557 24	75 15	1,096 79	72 45	4 00				150 55	223 00				14 00	237 00	44	
45	Prescott ".....	1,565 50										6 50	51 48				1 50	52 98	45	
25	Rideau Hall.....											900 97	5,135 65				3,215 00	17,997 77	46	
47	Stratford temporary post office.....	100 24	416 10										516 34	600 00			3 00	1,119 34	47	
48	Strathroy post office.....	7 10										9 40	16 50				4 35	20 85	48	
49	St. Catharines ".....	17 84	41 95				585 00					84 76	73 55				4 00	843 12	49	
50	St. Thomas ".....	48 34		114 28	16 00	193 49	177 32					50 03	422 14				2 00	424 14	50	
51	Trenton post office.....											0 40	177 72				7 00	184 72	51	
52	Toronto civil service examining office.....																		121 23	52
53	Toronto engineer's office.....	68 12										22 15	50 27					7 90	252 12	53
54	do Inland rev. office.....	192 18										626 15	907 22					79 00	177 17	54
55	do post office.....	32 52		25 00			63 89					26 10	68 02					231 58	1,363 69	55
56	Walkerton post office.....	110 48	3 50		6 40		3 00					23 80	137 78					15 00	68 02	56
57	Windsor do.....																		158 78	57
58	Public bldgs. generally—Ontario.....	12,742 97	1,193 95	6,408 35	686 88	10,472 81	2,941 72	1,166 39	1,160 09			9,069 37	44,682 44	90,990 45	7,148 28	10,821 23	3,611 80	157,254 29	58	
	Totals for Ontario.....																			
	Manitoba.																			
1	Brandon custom-house.....						22 00					60 00	82 00					315 84	397 84	1
2	do post office.....			24 45			19 50					46 90	251 50					36 00	365 25	2
3	Winnipeg architect's office.....	160 65																	189 33	3
4	do crown timber office.....											241 65	241 65						258 80	4

## Department of Public Works.

5	do custom-house.	107 94	5 25	254 50	4 90		413 24			13 00	16 80	443 04	5
6	do dom. lands office.		43 40	254 50			301 40				41 00	342 40	6
7	do engineer's office.								481 50			481 50	7
8	do exam. warehouse.	43 72		21 63			65 35				6 90	72 25	8
9	do inland rev. office.						3 50					3 50	9
10	do indian office.						1 70			34 90		36 60	10
11	do military store						37 50					37 50	11
12	do post office		59 12		1 20		428 64			7 65	56 55	492 84	12
13	Public bldgs. generally-- Manitoba						269 31	558 30				827 61	13
Totals for Manitoba.		616 08	132 22	530 63	47 60		2,095 79	558 30	481 50	407 39	345 48	3,888 46	
<i>N. W. Territories.</i>													
1	Calgary court house.						5 00			28 00		28 00	1
2	do immigrant bldg.						7 60					5 00	2
3	do post office.		7 00								22 96	30 56	3
4	Edmonton registrar's office.	38 35					55 90					55 90	4
5	Lethbridge court house.						0 40				6 20	0 40	5
6	do post office.											233 25	6
7	Macleod custom-house.				210 00		233 25		250 00	56 60		316 00	7
8	do court house.						10 00			38 50		38 50	8
9	Moose Jaw court house.						633 15					686 15	9
10	Prince Albert do	4 50				560 15	88 50					1 88	10
11	do registry office	1 88					1 88						11
12	Regina clerk of works office.								25 00			63 50	12
13	Regina council chamber.	203 11					203 11					203 11	13
14	do court house.						38 55					73 92	14
15	do dom. lands office.										35 37	1 70	15
16	do genl and lunatic asylum.	36 45					36 45					36 45	16
17	Regina Lieut.-Governor's residence.	94 00					37 13	131 13				131 13	17
18	Regina post office.	19 56			5 54		88 07			95 30	9 95	193 32	18
19	Public bldgs. generally-- N. W. T.						228 00	1,017 96	275 00	218 40	147 68	1,245 96	19
Totals for N. W. T.		397 85	7 00		215 54	560 15	316 90	1,692 49	1,017 96			3,351 53	
<i>British Columbia.</i>													
1	Nanaimo post office.				2 50		6 00					8 50	1
2	New Westminster, custom house	50 15										50 15	2
Carried forward.													





59 Victoria.

Sessional Papers (No. 10.)

A. 1896

DOMINION OF CANADA

---

ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

FOR THE PAST

FISCAL YEAR FROM 1st JULY, 1894, TO 30th JUNE, 1895

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

*PRINTED BY ORDER OF PARLIAMENT*



OTTAWA

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

1896

[No. 10—1896.] *Price 45 cents.*



## Department of Railways and Canals.

*To His Excellency the Right Honourable Sir John Campbell Hamilton-Gordon, Earl of Aberdeen, &c., &c., &c., Governor General of Canada, &c., &c., &c.*

**MAY IT PLEASE YOUR EXCELLENCY :**

The undersigned has the honour to present to Your Excellency the **Annual Report of the Department of Railways and Canals, of the Dominion of Canada, for the past fiscal year, from the 1st of July, 1894, to the 30th June, 1895.**

All of which is respectfully submitted,

**JOHN HAGGART,**  
*Minister of Railways and Canals.*



# Department of Railways and Canals

## CONTENTS OF MINISTER'S REPORT.

### RAILWAYS.

GENERAL STATEMENT :	PAGE.
Summary of general railway statistics.....	xii
Total Government expenditure on railways prior to and since Confederation.....	xii
Routes between Halifax or St. John and Montreal.....	xiii
 <b>CANADIAN PACIFIC RAILWAY, MONTREAL TO THE PACIFIC COAST :</b>	
Distance—Trunk line.....	xiv
Interest guarantee agreement.....	xiv
Agreement <i>re</i> cancellation of North Shore Bonds.....	xv
Arbitration <i>re</i> Government work in B. C.....	xvi
Earnings and expenditure.....	xvi
 <b>GOVERNMENT RAILWAYS :</b>	
Length of lines and general financial position of the year.....	xvii
 <b>INTERCOLONIAL :</b>	
Table of through distances.....	xvii
Expenditure on Capital Account.....	xviii
do Revenue Account.....	xviii
Comparative traffic statistics.....	xviii
General items.....	xix
Windsor Branch.....	xix
 <b>PRINCE EDWARD ISLAND RAILWAY :</b>	
Distances on line and extensions.....	xx
Expenditure on Capital and Revenue Account.....	xx
Comparative traffic statistics.....	xx
 <b>GOVERNMENT ACTION AS TO SUBSIDIZED LINES :</b>	
General statement showing aggregate of payments since 1893.....	xxi
Railway companies subsidized in money—Alphabetical order.....	xxii
do do land do.....	liii
 <b>RAILWAY COMMITTEE OF THE PRIVY COUNCIL :</b>	
Cases heard before.....	lx
 <b>RAILWAY AND CANAL LEGISLATION OF SESSION 1895.....</b>	 <b>lxv</b>

### CANALS.

List of canal systems.....	lxvi
Total Government expenditure on canals prior to and since Confederation.....	lxvi
Receipts and expenditure of the year.....	lxvii
Principal features of freight traffic on the several canals.....	lxviii
 <b>RIVER ST. LAWRENCE AND LAKES :</b>	
Distances and intermediate canals.....	lxix
Note on the American Sault Ste. Marie Canal.....	lxx
General information as to position of works of enlargement.....	lxxi

	PAGE.
LACHINE CANAL.....	lxxiii
BEAUHARNOIS CANAL ....	lxxiv
CORNWALL CANAL.....	lxxiv
WILLIAMSBURG CANALS :—	
Expenditure on the group for the year.....	lxxv
Farran's Point Canal.....	lxxvi
Rapide Plat Canal.....	lxxvi
Galops Canal.....	lxxvii
do Rapid, Improvement of channel.....	lxxii
MURRAY CANAL.....	lxxviii
WELLAND CANAL :—	
Main line, Lake Ontario to Lake Erie.....	lxxix
Welland River branches.....	lxxix
Grand River feeder.....	lxxix
Port Maitland branch .....	lxxix
SAULT ST. MARIE CANAL .....	lxxx
MONTREAL, OTTAWA AND KINGSTON :—	
General description.....	lxxxii
Table of distances.....	lxxxii
St. Anne's Lock.....	lxxxiii
Carillon Canal.....	lxxxiii
Grenville Canal.....	lxxxiv
UPPER OTTAWA RIVER :—	
Culbute Locks and Dam.....	lxxxiv
RIDEAU CANAL.....	lxxxv
RICHELIEU AND LAKE CHAMPLAIN :—	
General description.....	lxxxvi
St. Ours Lock and Dam.....	lxxxvii
Chambly Canal.....	lxxxviii
TRENT CANAL :—	
Description.....	lxxxviii
Extent of navigable and unnavigable reaches .....	lxxxix
ST. PETER'S CANAL.....	xci
SOULANGES CANAL.....	xci

## MAPS.

(BETWEEN REPORT AND APPENDICES.)

1. General map of the Dominion.
  2. Nova Scotia, Cape Breton, Prince Edward Island and part of New Brunswick.
  3. New Brunswick and parts of Maine and Quebec.
  4. do do taking in Montreal.
  5. Eastern Ontario and part of Quebec.
  6. Western Ontario.
  7. North of Lake Superior.
  8. Lake Superior to Manitoba.
  9. Manitoba and Assiniboia.
  10. Assiniboia and Saskatchewan.
  11. Assiniboia and Alberta to the Rocky Mountains.
  12. British Columbia.
  - 13-16. Canals.
- Map of the Railway system of Canada, page 491.

# Department of Railways and Canals.

## APPENDICES.

	PAGE.
<b>APPENDIX No. 1.—STATEMENTS OF ACCOUNTANT OF DEPARTMENT—STATEMENT OF EXPENDITURE during Fiscal Year.....</b>	<b>1</b>
do <b>2.—TOTAL expenditure on construction and maintenance of each Canal.....</b>	<b>3</b>
Recapitulation . . . . .	13
Revenue collection on each Canal . . . . .	15
Summary Revenue, Hydraulic and other rents . . . . .	18
Refunds of Canal Tolls during fiscal year . . . . .	19
Railway Expenditure and Revenue.....	20
Recapitulation, Expenditure and Revenue.....	27
do <b>3.—Payments to Railways on subsidy account since 1883.....</b>	<b>23</b>
do <b>4.—General Report of Chief Engineer of Railways and Canals . . . . .</b>	<b>34</b>
do <b>5.—Intercolonial Railway—</b>	
Report of General Manager Government Railways.....	66
Statements of Chief Accountant and Treasurer.....	71
do     Chief Engineer.....	79
do     Mechanical Superintendent. . . . .	86
do     do     Accountant . . . . .	95
Return of Accidents and Casualties.....	96
<i>Windsor Branch Railway—</i>	
Report of General Manager.....	100
Statement of Accountant.....	101
do     Chief Engineer.....	103
<i>Prince Edward Island Railway—</i>	
Report of General Manager.....	104
Statement of Superintendent . . . . .	105
do     Accountant and Auditor . . . . .	110
do     Mechanical Accountant.....	116
Return of Accidents and Casualties.....	123
do <b>6.—Arbitration Award Work on C.P.R. in B.C., Report of Inspecting Engineer..</b>	<b>124</b>
do <b>7.—Sault Ste. Marie Canal Construction, Report of Engineer in charge . . . . .</b>	<b>129</b>
Soulanges Canal           do           do           do . . . . .	130
Reports of the Superintending Engineer and Superintendents on—	
(a.) Lachine and Beauharnois Canals on the St. Lawrence line.	
(b.) St. Ours Lock and Chambly Canal on the Richelieu Line.	
(c.) Ottawa River Canals.. . . .	133
Trent Valley Canal, Report of Superintending Engineer.....	145
Rideau Canal           do     Acting           do . . . . .	150
Report of the Superintending Engineer on—	
(a.) Cornwall Canal Operation . . . . .	155
(b.) Williamsburg Canals Operation . . . . .	156
(c.) Murray Canal Operation.....	157
Statement of Highest and Lowest water levels on above canals.....	158
Cornwall Canal Construction, Report of Superintending Engineer . . . . .	159
Williamsburg Canals           do           do . . . . .	162
Welland Canal, Report of Superintending Engineer . . . . .	166
do     Damages by vessels . . . . .	176
do     Statement of fines . . . . .	177
do     Highest and Lowest water levels . . . . .	178
St. Peter's Canal, Report of Superintending Engineer.....	179

	PAGE.
APPENDIX No. 8.—Report of Inspector of Canal Tolls.....	180
do 9.—Railways subsidized in cash, rails and land.....	182
do 10.—Railway Subsidy Acts since 1882.....	187
do 11.—Statement of contracts entered into during the fiscal year 1894-95.....	233
do 12.—Water power and other public property leased on Canals and Railways during the fiscal year 1894-95.....	236
do 13.—Property purchased or damaged by Department of Railways and Canals during the fiscal year 1894-95.....	240
do 14.—List of Agreements respecting railway subsidies for 1894-95.....	246

## CANAL STATISTICS FOR SEASON OF NAVIGATION, 1894.

## APPENDIX No. 15.

<i>Revenue</i> .....	249
Statement of grain passed down the Welland Canal.....	250
do do to Montreal by Grand Trunk and C. P. Rys.....	251
do do do St. Lawrence Canals.....	251
do do Seaboard by N. Y. Railways and Canals.....	252
do Transhipment of Grain at Kingston.....	252
do East and West bound Freight.....	254
do Statistical Comparison of various United States routes.....	256
do do St. Mary's Falls Canal.....	259
do Exports by Lake from the Port of Chicago.....	261
<i>Freight Rates</i> .....	262 to 272
Reports of, in transit trade.....	273 to 277
C. Tonnage of certain articles through all the Canals of New York.....	278
D. do do do the Welland Canal.....	280
E. do cleared at Buffalo and Tonawanda through the Erie Canal.....	282
do do do Oswego do do.....	283
F. do do downwards on the Welland Canal.....	284
G. do through the Welland Canal in transit between ports in the United States.....	285
H. do of Vegetable Food carried on Welland and New York Canals, and the two principal railways competing for the carrying trade to tide-water.....	286
I. Statement of Freight passed down the Welland Canal in Canadian and United States Vessels.....	287
Statement of Freight passed up the Welland Canal in Canadian and United States Vessels.....	292
Summary of Up and Down Freight on the Welland Canal.....	293
J. Quantity of large class of Vessels lightened at Port Colborne.....	294
K. do Freight passed Eastward from Lake Erie to Montreal.....	300
L. do do Westward from Montreal to Lake Erie.....	302
M. do do Eastward through the Welland Canal from United States to United States Ports.....	304
N. Vessels and their Cargoes of Grain from Ports west of Port Colborne to Montreal, quantity transhipped at Kingston and quantity taken to Montreal.....	306
Recapitulation of Statement N.....	307
O. Quantity of Grain passed down the Welland Canal to Kingston, in Canadian and United States Vessels.....	308
P. Recapitulation of Statement O.....	309
Q. Comparative Statement of quantity of Grain to Kingston for 1893, 1894.....	310
S. Statement of Coal passed through the Welland Canal.....	311
T. do do St. Lawrence Canals.....	311
U. do quantity of Freight passed down the Welland Canal to Montreal, quantity to Ontario Ports and quantity to United States Ports.....	312
Recapitulation of Statement U.....	324
V. Summary Statement of Freight passed down the Welland Canal on which full Tolls were paid.....	328
Comparative Statement of Revenue on all the Canals for years 1893 and 1894.....	330
do do Vegetable Food and Lumber do.....	332
Statistics of Canal Traffic.....	334 to 403



## Department of Railways and Canals.

STATEMENT NO.		PAGE.
	1.—Welland Canal, details of Traffic, arranged alphabetically.....	334
do	2.— do Through Traffic, arranged alphabetically.....	338
do	3.— do Way do.....	342
do	4.—St. Lawrence Canals, details of Traffic do.....	346
do	5.— do Through Traffic do.....	350
do	6.— do Way do.....	354
do	7.—Ottawa Canals, details of Traffic do.....	358
do	8.—Chambly do do.....	362
do	9.—Rideau do do.....	365
do	10.—St. Peter's do do.....	368
do	11.—Trent Valley Canals do do.....	369
do	12.—Murray Canal do do.....	372
do	13.—Statement of Traffic on above mentioned Canals according to Classes.....	376
do	14.—Summary of Traffic on the above mentioned Canals.....	382
do	15.—Statement of the amount of Tolls accrued each Month on all the Canals....	388
do	16.— do Number, Tonnage and Nationality of Vessels passed through all the Canals.....	390
do	17.—Comparative Statement of Grand Total Freight passed through all the Canals	394
do	18.—Statement of Number and Tonnage of Vessels passed through the Welland Canal in 1894.....	395
do	19.—Statement of Number and Tonnage of Vessels passed through the St. Lawrence Canals in 1894.....	399
do	20.—Statement of Number and Tonnage of Vessels passed through the Rideau, Ottawa and Chambly Canals in 1894.....	401
do	21.—Classified Tonnage of all Vessels through all the Canals in 1894.....	402
do	22.—Consolidated tariff of Tolls.....	404

### RAILWAY STATISTICS.

APPENDIX	No. 16.—Table showing yearly growth of railways since 1836.....	417
	Summary of capital, operations, &c., for the year ended 30th June, 1895. ....	418
	Nominal paid-up capital.....	419
	Government and municipal aid promised to railways completed and under construction.	419
	Total fatal accidents during the fiscal year 1894-95.....	420
	Government Land Grants to railways completed and under construction.....	420
	Table of locations of Dominion Railways.....	421
	No. 1. Statement of Capital at the end of fiscal year 1894-95.....	429
	2. do Characteristics of Railways.....	432
	3. do different descriptions of Rolling Stock.....	438
	4. do operations and mileage for the year.....	444
	5. do description of freight carried.....	450
	6. do earnings.....	456
	7. do operating expenses.....	462
	8. do accidents.....	468
	9. do lines owned by Coal and Iron Companies.....	472
	10. do do Government and Municipal aid to Railways.....	473
	Summary of aid granted to railways constructed and under construction by Govern- ments and Municipalities.....	490
APPENDIX	No. 17.—Memorandum on Railway progress in Canada :—.....	491
	A Paper read before the International Railway Congress, London, 1895, by Sir Charles Tupper, Baronet, G.C.M.G., C.B.	



# Department of Railways and Canals.

## REPORT

1894-95.

To His Excellency  
The Earl of Aberdeen,  
Governor General.

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 on the 30th of June, 1895.

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

Attached hereto (Appendices Nos. 1, 2 and 3) will be found statements showing the amounts expended during the past fiscal year in construction, repairs, and maintenance of the several works under the department; also statements showing total expenditure on each canal since its construction, on each of the Government railways, and on the Canadian Pacific Railway so far as the Government is concerned; also a statement showing the payments made, year by year, to subsidized railways, with the aggregates of such payments.

---

### RAILWAYS.

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

In an appendix will be found a special statistical report, embodying returns for the fiscal year ended on the 30th June, 1895, made by Canadian railway companies, as required by statute. This report gives information as to railroad operations in Canada, including the Government roads.

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

---

\* It should be observed that while the usual reports furnished by the superintending officers, and to be found in the appendices hereto, deal with the fiscal year only, the Chief Engineer of Government Railways has reported, dealing with certain matters under his charge up to the 30th of September, 1895. Information on points relating to subsidized lines of railway has, in previous years, been brought down in the general report to the end of December, thus giving the results of the season's work. This year, however, it has been found necessary, in consequence of the early date of the meeting of Parliament, to confine statements to the operations of the fiscal year.

The number of railways in actual operation, including the two Government roads, the Intercolonial and the Prince Edward Island Railways, was 138, two short and unimportant roads having temporarily ceased operation; some of these, however, are amalgamated or leased; making the total number of controlling companies 74, not including the Government railways.

The number of miles of completed railway was 16,091, an increase of 323 miles, besides 2,054 miles of sidings. The number of miles laid with steel rails was 15,745. The number of miles in operation was 15,977.

The paid-up capital amounted to \$894,640,559, an increase of \$6,675,539. The gross earnings amounted to \$46,785,487, a decrease of \$2,777,041, and the working expenses aggregated \$32,949,669, a reduction of \$2,468,764, compared with the previous year, leaving the net earnings of the year \$14,035,818, a decrease of \$298,277. The number of passengers carried was 13,987,580, a reduction of 474,918, and the freight traffic amounted to 21,524,421 tons, an increase of 803,305 tons. The total number of miles run by trains was 40,661,890, a reduction of 3,108,139 miles. The accident returns show that 9 passengers were killed.

## RAILWAY CONSTRUCTION EXPENDITURE.

### BEFORE AND SINCE CONFEDERATION.

The following shows the total amount expended by the Government for construction of railway works or granted in aid of such construction: embracing the period prior to confederation and extending down to the 30th of June, 1895:

(a.) Intercolonial Railway system as established by the Act 54-55 Vic., ch. 50 (1891).....	\$55,007,939 40
Prince Edward Island Railway.....	3,750,565 38
Montreal and European Short Line Railway....	333,942 72
(b.) Carleton Branch Railway.....	48,410 48
Canadian Pacific Railway—Works built by the Government and transferred to the Canadian Pacific Railway Company, including payments made under award for works in B.C.....	31,014,163 78
Canadian Pacific Railway—Other expenditure on surveys, explorations, telegraph lines, Dawson Route, Fort Frances Lock, &c. ....	6,639,581 43
(c) Annapolis and Digby Railway..	119,225 80
<b>Total expended by the Government itself on railway works.....</b>	<b>\$96,913,828 99</b>

(a) Certain amounts, originally charged to "Capital," expended prior to confederation on railways which became part of the Intercolonial, were subsequently transferred to "Consolidated Fund" (see the accountant's note p. 20). They are not included in the above, but are included in his Recapitulation p. 27.

(b) Being the difference between \$88,410.48 expended by the Government and the sum of \$40,000, paid to it in March, 1893, by the Corporation of St. John, to whom this road was transferred.

(c) Being the expenditure over and above the sum of \$500,000 voted as a subsidy by the special act 52 Vic., ch. 8 (1889), which sum is now included in the "subsidies to railways" under the heading "Western Counties Railway" (see accountant's statement p. 33), this section having been transferred to that Company.

## Department of Railways and Canals.

### SUBSIDIES TO RAILWAYS.

Canadian Pacific Railway.....	25,000,000 00
(d) Canadian Pacific Railway Extension to Quebec....	1,500,000 00
(e) Canada Central Railway .....	1,525,250 00
Western Counties Railway (Annapolis and Digby).....	500,000 00
(f) Other railways.....	12,487,136 54
	41,012,386 54
Total paid as subsidy.....	41,012,386 54
	\$137,926,215 53

The expenditure for each year is shown in Appendices 1, 2 and 3.

This amount does not include the annual subsidy of \$186,600 payable half yearly for twenty years, dating from the 1st of July, 1889, to the Atlantic and North-west Railway Company; nor the annual payment of \$119,700 to the Provincial Government of Quebec, being interest at the rate of 5 per cent on the sum of \$2,394,000 granted by 47 Vic., ch. 8 (1884), for the line between Ottawa and Quebec. These items are dealt with by the Finance Department.

### CANADIAN TRANSCONTINENTAL RAILWAY COMMUNICATION.

#### HALIFAX OR ST. JOHN TO MONTREAL.

The routes available between Halifax and Montreal are four in number; in all of which the Intercolonial is used, either in whole or in part, as follows; (the names adopted are those of the dominating roads);—

#### Intercolonial Railway Route—

	Miles.
By Intercolonial Railway to Point Lévis....	675
Grand Trunk Railway to Montreal.....	173
	848

(Or by ferry across the St. Lawrence to Quebec, thence by North Shore Railway, C.P.R., also 173 miles.)

#### Canadian Pacific Railway Route—

By Intercolonial Railway to St. John, N.B.....	275
New Brunswick Railway and Maine Central Rail- way to Muttawamkeag.....	146
Canadian Pacific Railway to Montreal.....	334
	775

(d) Of this, \$970,000 was expended in the purchase of bonds of the road, which were subsequently cancelled under the Act 54-55 Vic., ch. 11.

(e) Including \$85,250 refunded to the town of Pembroke.

(f) Including value of old rails transferred, and also the \$500,000 expended on the Annapolis and Digby section of the Western Counties Railway.

Grand Trunk Railway Route—

	Miles.
By Intercolonial Railway to St. John, N.B.....	275
New Brunswick Railway.....	90
Maine Central Railway.....	224
	<hr/>
Total up to Danville Junction.....	589
By Grand Trunk Railway to Montreal.....	270
	<hr/>
	859

Témiscouata Railway Route—

By Intercolonial Railway to St. John.....	275
New Brunswick Railway to Edmunston.....	170
Témiscouata Railway to Rivière du Loup.....	81
Intercolonial Railway to Lévis.....	115
Grand Trunk Railway to Montreal.....	173
	<hr/>
	814

MONTREAL TO THE PACIFIC COAST.

CANADIAN PACIFIC RAILWAY.

NOTE.—A somewhat detailed statement of the Government transactions with the company will be found in the Annual Report of this department for the year 1887.

*Trunk Line.*

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

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

By the Act 51 Vic., ch. 32, approval and ratification was given to a certain agreement, dated the 18th of April, 1888, provisionally made between the Government and the company, whereby the restrictions contained in Article 15 of the original agreement for the construction of the road, barring the Dominion Parliament for twenty years from authorizing the construction of railways south of the Canadian Pacific Railway from any point at or near that road, except those running south-west, were removed. By this agreement, the Government undertook to

## Department of Railways and Canals.

guarantee the payment of interest at  $3\frac{1}{2}$  per cent on an issue of the company's bonds, to the extent of fifteen million dollars, running for a term not exceeding fifty years; the unsold lands of the company's subsidy, estimated at nearly fifty million acres, to form the security for such bonds. The arrangements contemplated by this agreement are being carried out by the Department of Finance. A deed of mortgage in favour of special trustees, one of whom is the Minister of Finance, has been executed under date the 2nd of June, 1888, having previously been approved by an Order in Council of the 1st of that month, being a mortgage of the said unsold lands of the company's subsidy, amounting to 14,934,238 acres, and constitutes the said security.

By the Act passed in 1891, 54-55 Vic., c. 11, respecting the North Shore section of the Canadian Pacific Railway, authority was given, subject to certain provisions for the cancellation of the mortgage bonds of the North Shore Railway, which to the value of \$1,108,626, had been purchased by the Government for the sum of \$970,000 (part of a sum of \$1,500,000 voted by Parliament in the years 1884 and 1885, to secure to the port of Quebec free access for the trains and traffic of the Canadian Pacific Railway) and for discharging that company from all liability in respect of such bonds. The conditions under which this action might be taken were, as stated in the Act, that the company should execute a deed of agreement binding itself to complete and provide, with all due diligence, the following works and improvements, namely:—

“Rolling stock, including sleeping cars, day coaches, baggage, mail, and express cars, locomotives and freight cars, of a standard equal to that used on other portions of the company's railway system, involving an outlay of about three hundred and fifty thousand dollars.

“Improvements over the whole line between St. Martin's Junction and the city of Quebec, of such a character as to bring that section up to the highest standard of the other Canadian Pacific stations, including additional accomodation for passengers at nearly every station, and increased space for the handling of freight, the lengthening of platforms and sidings, the furnishing of new sidings for the development of stone, lumber and other traffic, the substitution of iron for wooden bridges on the line of the North Shore Railway, and the construction of the following specific works, that is to say:—

(1.) In the city of Quebec:

(a.) One grain elevator;

(b.) One flour shed;

(c.) Such local improvements and facilities as are necessary for the handling of the traffic of that city.

(2.) In Three Rivers:

(a.) One grain elevator;

(b.) Improvements over the loop line;

(c.) Improvements on the Piles Branch;

“The said improvements over the whole line involving an outlay of about \$300,000, in addition to the said outlay on rolling stock;

“The whole to be completed to the satisfaction of the Minister of Railways and Canals.”

In pursuance of this Act, and on application by the company, an Order in Council was passed on the 14th of December, 1891, reciting the facts of the case and approving of the execution of a draft agreement, by which the company binds

itself to carry out the improvements called for by the Act; expending the money thereon as follows:—

“At least two hundred thousand dollars (\$200,000) during the year ending on the first day of April, A.D., 1893; an aggregate of at least three hundred and fifty thousand dollars (\$350,000) to the end of the year ending on the first day of April, A.D., 1894; and an aggregate of at least five hundred thousand dollars (\$500,000) to the end of the year ending on the first day of April, A.D. 1895, and an aggregate of at least six hundred and fifty thousand dollars (\$650,000) to the end of the year ending on the first day of April, 1896, subject to such extension in respect of any repairs or renewals for which the necessity has not arisen as may be granted by His Excellency the Governor in Council.”

On the 22nd of December, 1891, the agreement so authorised was duly signed.

The works are in progress, but no inspection has yet been made.

In the agreement dated the 20th of November, 1886, and executed under an Order in Council of the 2nd of that month, which constituted the basis of the final settlement of matters between the Government and the company prior to the transfer of the road to them, a special provision was inserted, in view of dispute as to the condition in which the work in British Columbia executed by the Government should be handed over. The company accepted the same, “subject to the adjustment and correction by the Government of any defects or deficiencies in the construction thereof, if any, according to the specifications and conditions of the contracts therefor, except in so far as the same were modified by the Government prior to 21st of October, 1880.”\*

For the determination of the questions covered by the foregoing, a special arbitration was authorized by an Order in Council of the 5th of January, 1888. The arbitrators duly made their award, dated the 6th of July, 1891, and it was furnished to the Government in October, 1891, the amount fixed thereby as payable by the Government to the company being \$579,255.20. The amount claimed by the company was \$12,000,000. This award, in effect, represents the value of work which the arbitrators find the Government should have performed on the sections of the road in British Columbia constructed by it. The amount awarded was to be expended, under the supervision of an officer of the Government, for the improvement of the railway in certain specified directions.

The total value of the work so executed from the date of the award up to the 1st of September, 1895, as returned by the Government officer in charge is \$319,892.02, which added to the expenditure, \$202,675.20, prior to the date of the award makes the total expenditure thereunder \$522,567.22, to this has to be added the sum of \$8,885.20 for work done in the month of September 1895, making the total of \$531,452.42 and leaving still to be expended the sum of \$47,802.78. A detailed report from the Inspecting Engineer on the work executed will be found in Appendix 6, p. 124.

It should be noted that for the year ended on the 30th June, 1895, the company had under traffic, in Canada, 6,159 miles of railway, including leased lines—and that its gross earnings were \$17,912,273.60 (as against 6,094 miles of railway and receipts \$19,357,098.05 the previous year). The total expenditure for

\*The date of the company's contract.



## Department of Railways and Canals

working expenses was \$11,282,506, making the net earnings \$6,629,767.60. The company carried 2,892,995 passengers and 3,720,567 tons of freight. These figures, which apply only to the traffic in Canada, are taken from the sworn statements of the company, furnished in accordance with the Railway Act. (See Railway Statistics Appendix).

### GOVERNMENT RAILWAYS IN OPERATION.

The several lines maintained by the Government are: The Intercolonial, the Windsor Branch (maintained only), and the Prince Edward Island Railway, making a total of 1,397½ miles.

The through ocean mail line from Point Lévis, opposite Quebec, to Halifax, is 675 miles in length.

Details respecting these railways and their operations will be found in Apper-dices Nos. 4, p. 34, and 5, p. 66, containing reports from the Chief Engineer of the department, the General Manager of Government Railways, and the officials of these roads.

The general revenue accounts for 1894-95 show the following as the financial position of these roads for the fiscal year.

The Intercolonial Railway system, 1,142 miles in operation, earned \$2,940,717.95 and the working expenses aggregated \$2,936,902.74, leaving a profit of \$3,815.21.

The Windsor Branch is maintained, but not operated, by the Government, which takes one-third of the entire receipts. Its length is 32 miles. The Government earnings amounted to \$59,077.64, and the expenditure on maintenance was \$14,640.07 leaving a profit of \$24,437.57.

The Prince Edward Island Railway is 211 miles long. Its earnings amounted to \$149,654.78, and the working expenses were \$232,905.69; the loss on the year's operation being \$83,250.41. Deducting from the profit made on the Intercolonial and the Windsor Branch the loss on the Prince Edward Island Railway, the net loss was \$54,997.63.

The gross earnings of all the Government roads for the past fiscal year amounted to \$3,129,440.37, and compared with those of the preceding year show a decrease of \$49,579.20. The gross working expenses amounted to \$3,184,448.00 a reduction of \$41,760.13.

### INTERCOLONIAL RAILWAY.

The Intercolonial Railway touches six Atlantic Ocean ports, namely Pointe du Chêne, Pictou, Halifax, St. John, Sydney and North Sydney. Connection is made with the Grand Trunk Railway at Chaudière Junction and with the Canadian Pacific Railway at Quebec (by ferry from Lévis).

The total length of the road is 1,142 miles, to which is to be added for freight branches 12½ miles, making a total of 1,154½ miles.

The following are the through distances :—

	Miles.
Lévis (opposite Quebec) via St. Joseph and St. Charles Junction (14 miles) to Halifax.....	675
Lévis to St. John.....	578
Lévis via Truro { to Sydney.....	827
{ to North Sydney.....	820

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

#### CAPITAL ACCOUNT.

During the fiscal year there was an addition of \$327,034.51 to the Capital Account expenditure, making the total expenditure chargeable to "Capital," on the whole road as amalgamated under the Act 54-55 Vic., ch. 50 (1891), up to the 30th of June, 1895, \$55,007,939.40.

The additions made during the year included \$122,708.28 for increased accommodation at Halifax, \$118,154.94 for the construction of the branch line from Windsor Junction to Dartmouth, \$9,984.24 for fitting the automatic break to freight cars, and \$62,610.41 paid in settlement of claims in connection with the construction of the Oxford and New Glasgow and Cape Breton sections of the road.

#### REVENUE ACCOUNT.

The gross earnings of the year amounted to \$2,940,717.95, and the working expenses to \$2,936,902.74, making the excess of earnings over expenditure \$3,815.21. The expenditure was less than that of the previous year by \$44,769.24.

Comparing the earnings with those of the previous year, the passenger traffic produced \$963,914.44, an increase of \$4,999.31; the freight traffic amounted to \$1,782,608.54, a decrease of \$51,517.80, and the carriage of mails and sundries produced \$194,194.97, an increase of \$273.83.

The value of stores, including fuel and steel rails, on hand at the close of the fiscal year was \$691,347.30.

The cost per mile of railway was \$2,571.71 against \$2,610.94 the previous year, and the cost per mile run by trains was \$73.43 cents against \$70.94 cents the previous year.

#### GENERAL OBSERVATIONS.

In comparing the traffic of the past fiscal year with that of the previous year, the following features will be of interest :—

The total number of passengers carried was 1,352,667, an increase of 51,605. The local passenger traffic increased by 56,257, but the through traffic showed a decrease of 4,652. The freight traffic amounted to 1,267,816 tons, a decrease of 74,894 tons, the local freight having fallen off to the extent of 64,740 tons, and the through freight to the extent of 10,154 tons.

## Department of Railways and Canals.

Of flour there were carried 938,351 barrels, a decrease of 6,616. Of grain there were carried 1,036,384 bushels, a decrease of 268,300. No portion of this was for shipment at Halifax. Lumber showed an increase of 1,739,320 superficial feet, the total quantity transported being 200,507,949 feet. There was a decrease of 7,097 in the number of live stock carried, the number being 72,106. Coal showed a decrease of 93,491 tons, the quantity being 385,200 tons. Of raw sugar 10,342 tons were carried, an increase of 3,567 tons, the whole quantity being for local stations. Of refined sugar 33,865 tons were carried, an increase of 284 tons; of this all but 4,695 tons was for points west of the road. A total of 6,892 tons of fresh fish, an increase of 517 tons, and a total of 10,209 tons of salt fish, an increase of 2,512 tons were carried.

A further addition was made to the number of freight cars fitted with the automatic air brake, the number so fitted being now 971.

Twenty-five miles of track were relaid with the heavier steel rail, 67 pounds to the yard, in place of the 56 pounds rail. This work was charged to revenue.

On the 20th of October, 1894, the engine house, at Rivière du Loup, was destroyed by fire and a number of locomotives were damaged. The rebuilding of the engine house cost \$6,363.18 and the repair of the locomotives \$10,981.11.

By a fire which occurred at the Halifax deep water terminus on the 27th of February, 1895, railway property was destroyed to the value of \$202,100, the wharf and the grain elevator being the principal losses. The work of repair was at once commenced and temporary arrangements were made to obviate delay and inconvenience so far as possible.

A second fire on the 19th of May, 1895, occurred at the Richmond wharf near Halifax, entailing a loss to the extent of \$100,000.

The old railway crossing of the Narrows at Halifax harbour, giving communication with Dartmouth, having been practically destroyed by storms, has been abandoned, and the construction of a branch line, 11½ miles in length, between Windsor Junction and Dartmouth is in progress.

The winter of 1894-95 was severe, entailing heavy cost for removal of snow and ice, the sum of \$64,000 being expended in this direction.

All necessary repairs were made to structures, buildings, wharves, and other works, and the whole road, with its rolling stock has been maintained in a condition of efficiency.

Various statistical and comparative tables and other detailed information will be found in the appended reports of the Chief Engineer of the department, and of the General Manager and other officers of the Intercolonial Railway. (See Appendices 4 and 5.)

### WINDSOR BRANCH.

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

This railway is operated by the Windsor and Annapolis Railway Company, now called the Dominion Atlantic Railway Company. The company pay all charges in connection with the working of the traffic, two-thirds of the gross earnings being allowed them, the Government taking the remaining one-third, and assuming all

costs of maintenance of the road and works. This arrangement is carried out under an agreement dated the 13th of December, 1892, which extends for a further term of 21 years arrangements similar to those made in 1871.

All charges for superintendence and supervision of maintenance of works are borne by the Government, the duty of supervision being performed by the chief officers of the Intercolonial Railway.

The gross earnings of the Government (one-third of gross receipts) amounted to \$39,077.64, an increase of \$6,102.17. The expenses of maintenance amounted to \$14,640.07, a decrease of \$3,005.02, leaving the profit to the Government \$24,437.57.

The road has been maintained in good order. Details will be found in the appendices. (*See Appendix 5, p. 100.*)

### PRINCE EDWARD ISLAND RAILWAY.

#### LENGTH OF LINE.

	Miles.
Souris to Tignish.....	168
Mount Stewart to Georgetown .....	24
Charlottetown to Royalty Junction .....	5
Emerald Junction to Cape Traverse. ....	13
Alberton to Cascumpec Wharf.....	1
	<hr/>
	211
	<hr/> <hr/>

The railway was first opened for traffic on the 12th of May, 1875.

#### CAPITAL ACCOUNT.

The total cost of the road and equipment chargeable to capital account at the close of the fiscal year 1893-94 was \$3,750,565.38. There was no addition during the fiscal year 1894-95.

#### REVENUE ACCOUNT.

On revenue account the gross earnings amounted to \$149,654.71., and the working expenses to \$232,905.19, the over expenditure being \$83,250.41.

Compared with the previous year the gross earnings show a decrease of \$8,879.05. The railway carried 125,089 passengers, an increase of 1,362, producing \$62,239.37, a decrease of \$1,920.23. Of freight there were carried 48,325 tons, a decrease of 5,252 tons, producing \$68,061.11, a decrease of \$6,881.72. The transport of mails and sundries produced \$19,354.30, a decrease of \$77.10.

Compared with the previous year, the expenditure was greater by the sum of \$6,014.13.

The cost per mile run by trains was 95.35 cents, a reduction of 1.57 cents; and per mile of railway \$1,109.07, an increase of \$28.34.

The winter was unusually severe and the cost of clearing snow and ice, \$13,568.67, was greater, by \$3,873.73, than the cost in the previous year.

## Department of Railways and Canals.

The value of stores on hand at the close of the fiscal year was \$106,748.57.

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

Details of operations will be found in Appendix 5, p. 105.

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

### GOVERNMENT ACTION AS TO SUBSIDIZED LINES.

NOTE.—The numbers within brackets after the title of the company refer to the lists of railways subsidized by Parliament. Appendix 10, p. 187.

With regard to the several lines of railway subsidized by the Dominion, the following represents the action taken and the progress made, in so far as the Dominion Government is concerned; only those lines and companies being mentioned as to which definite steps, other than merely preliminary, have been taken towards securing the subsidy. Information has been brought down to the end of the fiscal year, the 30th of June, 1895, only.

The following shows the aggregate of the payments made on ordinary subsidy accounts since the system of subsidy of railway enterprise was commenced.

For the fiscal year	1883-84, ended on June 30,	1884	\$	208,000	00
do	1884-85	do		403,245	00
do	1885-86	do		2,171,249	00
do	1886-87	do		1,406,533	00
do	1887-88	do		1,027,041	92
do	1888-89	do		846,721	83
do	1889-90	do		1,491,595	72
do	1890-91	do		1,079,105	87
do	1891-92	do		1,061,615	93
do	1892-93	do		624,794	07
do	1893-94	do		1,043,285	10
do	1894-95	do		1,123,949	10
				\$12,487,136	54

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

Canada Central Railway.....		\$ 1,525,250	00
Canadian Pacific Railway.....		25,000,000	00
“ “ extension.....		1,500,000	00
Western Counties Railway (Digby Annapolis section).		500,000	00

Total payments up to the 30th of June, 1895.....\$41,012,386 54

The above does not include the annual subsidy payable to the Atlantic and North West Railway Company nor the amount due to the Province of Quebec for the North Shore Railway between Ottawa and Quebec, on which interest only is paid.

The following pages show, in alphabetical sequence, the position of those companies whose dealings with the Government in respect of subsidies are not yet closed. Reports of previous years give information as to companies whose subsidies have been fully earned and paid prior to the 1st of July, 1894.

A tabulated statement of payments will be found in Appendix 3, page 28, and a list of subsidy agreements entered into during the fiscal year in Appendix 14, p. 246.

The several Subsidy Acts passed in each year from 1882 will be found in Appendix 10, p. 187. No subsidies were authorized in the session of 1895.

**Albert Southern Railway Company.**

(See Annual Report of 1891-92.)

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

(See Annual Report of 1889-90.)

**Baie des Chaleurs Railway Company.**

(See Nos. 6, 42 and 158.)

This company was incorporated by the Quebec Provincial Act, 43 Vic., ch. 53.

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

Tenders for the works were received, but none of them coming within the limit of expenditure authorized by Parliament, an offer made by the Baie des Chaleurs Railway Company to build and operate this section as a part of their own road from Metapediac to Paspebiac for the amount, was accepted by an Order in Council of the 18th of September, 1885, and a provisional contract was entered into with them on the 7th of November, the section to be finished by the 1st of July, 1888; plans being furnished and the work supervised by the department.

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

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

## Department of Railways and Canals.

to the second 20-mile section as an additional subsidy therefor, making the grant for such section \$6,400 a mile.

To this arrangement approval of Parliament was given, the two agreements above mentioned being ratified and confirmed by the special Act 49 Vic., ch. 17; the date for the completion of the road being fixed by the Act as the 1st of December 1888, in place of the 25th of May, 1887, as contemplated by the agreements.

By the Railway Subsidy Act of 1889, 52 Vic., ch. 3, the balance, \$244,500 remaining unpaid of the subsidy mentioned in the Act 49 Vic., ch. 17, was granted to the company.

By authority of the same Act, the subsidy applicable to the 30 miles between the 70th and 100th mile was transferred to the section between the 40th and the 70th, making the grant for this section also \$6,400 a mile. The company undertook to construct the section from the 70th to the 100th mile without subsidy, and have deposited bonds to the value of £83,000 stg. as security to that effect.

Under date the 1st of June, 1891, an Order in Council was passed approving of the location of the section between the 60th and the 80th miles, and under date the 26th of October, 1891, a copy was furnished to the department of a contract made by the company for the construction of this section of road.

By the Act 54-55 Vic., ch. 97 (1891), the company was declared to be a corporation under the Parliament of Canada, and the time for completion of its railway was extended for charter purposes, namely, up to Paspébiac, to the 30th of September, 1893, and up to Gaspé Basin to the 30th of September, 1895.

The total subsidy for this road, covering the first 70 miles, was \$620,000.

Up to the close of the fiscal year 1889-90, payments had been made aggregating \$524,175. During the past fiscal year, there has been paid the balance, \$95,825, covering the 70 miles subsidized and completed. Further work has been done on the remainder of the road for which no subsidy is payable.

### Beauharnois Junction Railway Company.

(See Nos. 102 and 302.)

By the Railway Subsidy Act, 50-51 Vic., ch. 24, the grant of a subsidy not exceeding \$96,000 was authorized in favour of the Beauharnois Junction Railway Company from St. Martin towards St. Anicet, the estimated distance being 30 miles.

On the 21st of November, 1887, and under the authority of Orders in Council of the 1st of October and 2nd of November, a contract for the work was made with the company, namely, from St. Martin to Valleyfield, towards St. Anicet, the road to be completed by the 1st December, 1888. By the Order first named, approval was also given to the location of the road from its junction with the Montreal and Champlain Junction Railway, at St. Martin, to Valleyfield,  $19\frac{8}{10}$  miles. Up to the close of the fiscal year 1889-90 the total payments amounted to \$58,900. By the Act 56 Vic., ch. 2 (1893), the unpaid balance, \$3,500, was revoked, but no further payment has been made up to the 30th of June, 1895.

## Belleville and North Hastings Railway Company.

(See Annual Report of 1888-89.)

## Boston and Nova Scotia Coal Company.

(Nos. 251 and 356.)

The company was incorporated by the Act of the Province of Nova Scotia 56 Vic., ch. 147 (1893), with general powers for railway purchase or construction.

By the Dominion Subsidy Act, 57-58 Vic., ch. 4, 1894, a subsidy to this company limited to \$113,600 (in lieu of one previously granted in 1892) was authorized for the construction of 35½ miles of railway from a point on the Cape Breton Railway at or near Orangedale to Broad Cove, on the western side of the Island, and under date the 16th of November, 1894, a contract was entered into with the company for the work subsidized, the date for completion being fixed as the 1st August, 1896.

No payments have been made up to the 30th of June, 1895.

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

(See Nos. 48, 181, 193, 240, 267 and 316.)

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

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

Under an Order in Council of the 26th of November, 1888, the sum of \$45,000 was paid. The balance of the subsidy lapsed on the 1st of August, 1889, but was revoked by the Act 53 Vic., ch. 2 (1890).

By the Act 53 Vic., ch. 2 (1890), the grant of a subsidy to the extent of \$64,000 was authorized for 20 miles of railway from Newboro' towards Palmer's Rapids. For this subsidy there was substituted, by Act 54-55 Vic., ch. 8, one for the same amount, and for the same distance, 20 miles, but from a point "at or near Newboro' towards Palmer's Rapids," payment to be made on completion of each section of the railway as follows:—from at or near Newboro' to Westport, 4 miles, and from Westport towards Palmer's Rapids, 16 miles.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), the unpaid balances granted by 52 Vic. and 53 Vic., were revoked, and were further revoked by the Act 57-58 Vic., ch. 4, (1894), the amount not to exceed \$88,800.

Up to the close of the fiscal year, 1891-92, payment had been made to the extent of \$105,200. Nothing further has been paid up to the 30th June, 1895.



## Department of Railways and Canals

### Brantford, Waterloo and Lake Erie Railway Company

(See Nos. 104 and 318).

By the Act 50-51 Vic., ch. 24 (1887), authority was given for the grant of a subsidy of \$57,600 to the above company, for 18 miles of their railway from Brantford to Hagersville or Waterford, or some intermediate point on the Canada Southern Railway.

Under an Order in Council of the 4th of August, 1888, a contract was made with the company, on the 31st, for a line from Brantford to Waterford. An Order of the same date approved of the location, the actual distance being 16 $\frac{1}{2}$  miles. Up to the close of the fiscal year, 1890-91, the payments amounted to \$52,810, the amount of subsidy applicable being \$53,600. This company has now become amalgamated with the Toronto, Hamilton and Buffalo Railway Company, the agreement for amalgamation being approved by an Order in Council of the 16th of December, 1892.

By the Subsidy Act of 1894, 57-58 Vic., ch. 4, the unpaid balance of the previous subsidy, not exceeding \$4,790, was revoked. No further payments have, however, been made up to the 30th of June, 1895.

### Buctouche and Moncton Railway Company.

(See Annual Report for 1893-94).

### Canada Atlantic Railway Company.

(See Annual Report for 1888-89.)

### Canada Eastern Railway Company.

Formerly the Northern and Western Railway Company of New Brunswick, for which see Annual Report of 1889-90.

(See Nos. 350 and 370.)

This company was originally incorporated by a Provincial Act in 1872, under the name of the Northern and Western Railway Company of New Brunswick.

The railway was declared to be a work for the general advantage of Canada by the Dominion Act, 53 Vic., ch 74 (1890) and the name was changed as above.

Under its previous name, the company received subsidy to the extent of \$312,000 for the construction of a line of railway from Chatham to Gibson, opposite Fredericton.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894) the grant of assistance, limited to \$32,000, was authorized for two extensions, one 6 miles in length from Chatham to Black Brook, the other a branch to Nelson, 4 miles. A contract was entered into with the company on the 10th of November, for the construction of both works, to be completed by the 31st of October, 1896.

Also by the same Act, a subsidy of \$3,200 was authorized for one mile of railway from the western end of the line, to connect with the Canadian Pacific Railway.

The works contemplated by these three subsidies have all been completed, and during the fiscal year the sum of \$30,400 was paid, making the total payments to these two companies \$342,000.

**Canadian Pacific Railway Company**

(See No. 243.)

By the Subsidy Act 55-56 Vic. ch. 5 (1892), the grant of a subsidy limited to \$80,000 was authorized for 25 miles of a railway from a point on the Canadian Pacific Railway at or near Revelstoke to the head of Arrow Lake.

Under date the 24th of October, 1893, a contract has been made with the Canadian Pacific Railway Company for this work, the date for completion being the 1st of August, 1896. During the fiscal year, the sum of \$28,000, covering the first 10 miles from Revelstoke, has been paid.

**Cape Breton Railway Extension Company.**

(See No. 366.)

This company was incorporated by the Provincial Act of 1890, ch. 72, with powers for the construction of a line of railway from the Gut of Canso to Sydney or Louisbourg, with branches to any other railway.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), assistance was authorized to the extent of \$96,000 for 30 miles of the company's railway from Port Hawkesbury to St. Peter's on their line of railway from Port Hawkesbury to Louisbourg, and on the 21st of September, 1894, a contract was entered into with them for the work, the date for completion being fixed as the 1st of October, 1895.

No portion of the subsidy has been paid up to the 30th of June, 1895.

**Caraquet Railway Company.**

(See Annual Report of 1888-89)

**Central Railway Company of New Brunswick**

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

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

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

## Department of Railways and Canals.

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

By the Act 51 Vic., ch. 3, a grant as a subsidy to this company was authorized of used iron rails to the value of \$83,612.54, loaned to the St. Martin's and Upham Railway Company (which railway has been acquired by the Central Railway Company; the sale being approved by an Order in Council of the 15th of November, 1887), the condition of the grant being that such rails should first be replaced by new steel rails. The new steel rails were substituted, and an Order in Council of the 18th of October, 1889, authorized the transfer of the rails to the company.

By the Subsidy Act of 1894, 57-58 Vic., ch. 4, the grant of a subsidy, not exceeding \$48,000, to this company was authorized for 15 miles of their railway from Chipman station to the Newcastle coal fields.

Up to the end of the fiscal year 1891-92, there had been paid, including the value of the said rails, the sum of \$159,251.54; no payments have since been made up to the 30th of June, 1895.

### Chatham Branch Railway Company

(See Annual Report of 1893-94.)

### Chignecto Marine Transport Company.

(See No. 5.)

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

No definite action was, however, taken until the 6th of October, 1885, when an Order in Council was passed authorizing entry into agreement with the company, subject to the approval of Parliament; and such agreement was executed on the 4th of March, 1886. Under its terms, the subsidy payable is to be \$170,602 a year for 20 years, or such portion thereof as may be required to bring the net earnings to 7 per cent per annum on the authorized share and bond capital of the company, \$5,500,000, and to be granted only during the satisfactory performance of the services contemplated, such services comprising the raising, transport and lowering of vessels of 1,000 tons burden, registered, with full cargo. Should the earnings exceed 7 per cent per annum, one-half of such surplus is to be paid to the Government until repayment of the whole amount received by said company under their subsidy.

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

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

The company duly submitted plans, and these have been approved by Order in Council. Good progress was, for a time, made, and it was expected that the works would have been completed early in 1892. They have been, however, suspended, owing, it is understood, to financial causes.

By the Act 54-55 Vic., ch. 12 (1891), the date for completion for subsidy purposes has been extended to 1st of July, 1893, the penal clause in this regard contained in the Act 51 Vic., ch. 4, being repealed.

By the Act 55-56 Vic., ch. 37 (1892), authority was given to the company to issue new mortgage bonds to the value of £350,000 sterling, and by an Order in Council passed on the 9th of July, 1892, a recommendation to Parliament to extend the time, further, to the 6th of July, 1894, was promised, provided that the works were actually in progress, and that satisfactory evidence was given that the capital necessary for completion had been obtained. This evidence, however, was not produced, and no action was taken. The subsidy has lapsed.

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

(See Nos. 301, 249 and 275).

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

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

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

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

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

No payments have been made up to the 30th of June, 1895.

#### Columbia and Kootenay Railway and Navigation Company.

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

(See Annual Report for 1891-92.)

## Department of Railways and Canals.

### Cornwallis Valley Railway Company.

(See Annual Report for 1891-92.)

### Cumberland Railway and Coal Company.

(See No. 124.)

By the Act 50-51 Vic., ch. 24 (1887), the grant to this company of subsidy to the extent of \$44,800, was authorized for 14 miles of their railway, from a point on the Spring Hill and Parrsboro' Railway, near Spring Hill, to a point on the Oxford and New Glasgow Railway, near Oxford.

The company having applied, they were admitted to contract on the 12th of April, 1888, under an Order in Council of the 12th March, the work to be completed by the 1st August, 1891. Up to the end of the fiscal year 1890-91, the sum of \$39,850 had been paid. No further payments have been made since, and the balance of subsidy has lapsed.

### Dominion Atlantic Railway Company.

(See Western Counties Railway Company.)

### Dominion Lime Company.

(See Annual Report for 1888-89.)

### Dominion Coal Company.

(See No. 262.)

This company was incorporated by the Nova Scotia Act, 56 Vic., ch. 145 and 146. By the Subsidy Act, 55-56 Vic., ch. 5 (1892), a subsidy, limited to \$89,600, was authorized for 28 miles of a railway to complete connection between Sydney and Louisbourg, Cape Breton.

On the 26th January, 1894, a contract was entered into with the above company for the work from Bridgeport to Louisbourg Harbour. The first 10 miles section from Bridgeport has been completed, and during the fiscal year the sum of \$32,000 has been paid.

### Drummond County Railway Company.

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

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

Under the authority of an Order in Council of the 12th of November, 1887, a contract was made with the company on the 1st of December, 1887, covering a line from the South-eastern Railway, at the village of Drummondville, to the south-west branch of the River Nicolet; the road to be completed by the 1st of August, 1891.

On the 2nd of May, 1889, the company were admitted to contract for the balance,  $17\frac{1}{2}$  miles, of the 30 miles subsidized.

By the Subsidy Act of 1889, 52 Vic., ch. 3, the company were further subsidized for  $4\frac{1}{2}$  miles from the end of the line already subsidized, to Ball's wharf, on the River St. Lawrence, to the extent of \$14,400, and were admitted to contract on the 21st of January, 1890.

By the Subsidy Act, 53 Vic., ch. 2 (1890), authority was given for the grant of a subsidy the limit of which was \$76,000, for 24 miles of the railway of the company from Drummonville to Ste. Rosalie. Under date the 2nd of February, 1891, the company were admitted to contract for this work.

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

Up to the close of the fiscal year 1892-93, there had been paid to the company the sum of \$195,840, and during the past fiscal year the further sum of \$92,096 was paid, making the total payments \$287,936 up to the 30th of June, 1895.

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

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

**Erie and Huron Railway Company.**

(See Annual Report for 1886-87.)

**Esquimalt and Nanaimo Railway Company.**

(See Annual Report for 1886-87.)

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

(See Annual Report for 1888-89.)

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

(See Annual Report for 1893-94.)

**Great Eastern Railway Company.**

(See Nos. 88, 114, 174, 213, 235 and 296.)

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

## Department of Railways and Canals.

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

By the Act 50-51 Vic., ch. 24, authority was given for the grant of a subsidy to the company to an extent not exceeding \$96,000, for 30 miles of their railway from the River St. Francis to the Arthabaska (Grand Trunk) Railway at St. Grégoire, and under an Order in Council an agreement was entered into with them for the work, the date being 16th March, 1888. During the fiscal year 1890-91 the sum of \$16,300 was paid from this subsidy for 6.66 miles from the east bank of the River Nicolet to the Grand Trunk Railway at St. Grégoire.

By the Act 52 Vic., ch. 3, a subsidy was authorized to the extent of \$64,000 for a further distance of 20 miles from St. Grégoire. This subsidy was, in effect, revoked by the Act 56 Vic., ch. 2 (1893).

Authority has been given for entry into contract for this work, but the contract has not yet been signed.

By the Act 53 Vic., ch. 2 (1890), a subsidy of 15 per cent on the value of two bridges, one over the River Nicolet, the other over the River St. Francis, not exceeding \$37,500, was authorized. On the 20th of June, 1891, a contract was entered into with the company for the work. During that fiscal year there was paid the sum of \$4,845 for work on the Nicolet bridge.

By the Subsidy Act 54-55 Vic., ch. 8, there was revoked the balance unpaid, \$79,700, of the subsidy granted by the Act 50-51 Vic., ch. 26, which had lapsed, for a railway from the River St. Francis to the Arthabaska Railway at St. Grégoire.

There has been no further payment. The total amount paid the company is \$40,345 up to the 30th of June, 1895.

### Great Northern Railway Company

(See Nos. 33, 37, 72, 79, 154, 215, 231, 308, 309 and 371.)

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

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

The line was duly completed and inspected. Under an Order in Council of the 2nd of March, 1885, payment was made therefor, namely 7.84 miles, \$25,088.

By the Act 49 Vic., ch. 10 (1886), a subsidy not exceeding \$57,600 was authorized for a line from New Glasgow to Montcalm, a distance of about 18 miles. The Great Northern Railway Company having applied for it, it was granted to them by an Order in Council of the 18th July, 1887, which also approved of the location. The contract was made on the 19th of August, 1887, the road to be completed by the 1st of August, 1890.

By the Act 49 Vic., ch. 10, a subsidy not exceeding \$22,400 was granted for a line from St. Andrews to Lachute, Que., 7 miles. For this subsidy the above named company applied, but no contract was made. The same subsidy was again voted by the Act of 1889, 52 Vic., ch. 3, and under date the 8th of October, 1890, a contract was entered into with them for the work, calling for completion by the 1st of August, 1891. The road was built and allowed to be opened for public traffic in January, 1892.

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

By the Act 54-55 Vic., ch. 8 (1891), the unpaid balance, \$28,100, of the subsidy granted in 1886 was revoked.

By the Act 56 Vic., ch. 2 (1893), the unpaid balance, \$25,600 of the subsidy granted in 1891, was revoked, and a new contract for this work was entered into with the company on the 16th of June, 1894.

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

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), the grant to this company of a subsidy limited to \$96,000, was authorized for 30 miles of railway from a junction with the Lower Laurentian Railway near St. Tite, westwards, in lieu of a subsidy previously granted to the Maskinongé and Nispissing Railway Company.

During the past fiscal year there was paid the sum of \$32,000 for a ten mile section between the 18th and 28th mile from St. Jérôme, making the total payments to this company \$110,688 up to the 30th June 1895.

#### Guelfh Junction Railway Company.

(See Annual Report of 1888-89.)

#### Harvey Branch Railway Company.

(See Annual Report for 1889-90.)

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

(See Annual Report for 1891-92.)

#### International Railway Company.

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

#### Inverness and Richmond Railway Company.

(See No. 357.)

This company was incorporated by the Act of the Province of Nova Scotia, 50 Vic., ch. 60 (1887), with powers for the construction of a line of railway between



## Department of Railways and Canals.

Hawkesbury and a point in the district of Margaree. By the Act of 1888, ch. 79, the location of the line was authorized as from Port Hawkesbury, through Port Hastings, Judique, Port Hood, Mabou and Margaree, to a point at Eastern Harbour, Chéticamp.

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

No payments have been made up to the 30th of June 1895.

### Irondale, Bancroft and Ottawa Railway Company.

(See Nos. 24, 159 and 301.)

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

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

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

During the past fiscal year the sum of \$32,000 was paid, making the total payments up to the 30th of June, 1895, \$96,000.

### Joggins Railway Company.

(See Annual Report for 1891-92.)

### Kingston, Napanee and Western Railway Company.

(See Napanee, Tamworth and Quebec Railway Company.)

### Kingston and Pembroke Railway Company.

(See Annual Report for 1884-85.)

### Lake Erie and Detroit River Railway Company.

Formely "the Lake Erie, Essex and Detroit Railway Company," name changed by Dominion Act, 54-55 Vic., ch. 88 (1891).

(See Annual Report for 1893-94.)

### L'Assomption Railway Company.

(See Annual Report of 1886-87.)

### Leamington and St. Clair Railway Company.

(See Annual Report of 1888-89.)

## Lake Témiscamingue Colonization Railway Company.

(See Nos. 55, 84, 119, 122, 169, 216, 278, 282 and 324.)

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

In conformity with an express provision to that effect in clause 2 of the Act 49 Vic., ch. 10, letters patent were issued under an Order in Council of the 20th of July, 1886, published in the *Canada Gazette* of the 24th, granting a charter for the construction of this railway to the "Lake Temiscamingue Colonization Railway Company."

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

By the Act 50-51 Vic., ch. 24, the grant of subsidy to the extent of \$33,600 was authorized for 10½ miles of this company's line from Long Sault to Lake Kippewa. The contract for this subsidy was entered into on the 27th of June, 1888.

By the Act 52 Vic., ch. 3 (1889), a subsidy was authorized, not exceeding \$48,000, for 15 miles, from Mattawa station, C.P.R., towards the Long Sault, or *vice versa*.

By the Act 53 Vic., ch. 2 (1890), a subsidy was authorized, not exceeding \$64,000, for 20 miles from the northern end of the line subsidized by 52 Vic. ch. 3.

By the Act 55-56 Vic., ch. 5 (1892), in lieu of the above named subsidies of 1889 and 1890, a subsidy was authorized to this company not exceeding \$112,000 for 35 miles of their railway from Mattawa to the Long Sault.

By the same Act a subsidy was granted to the company, namely, for 15 miles of their railway from the Long Sault to the crossing of the Kippewa River, and 15 per cent on the value of a wooden truss bridge over the Ottawa River, near Mattawa, not exceeding \$15,000, and not exceeding in all \$63,000.

Under date the 31st of August, 1893, a contract was entered into with the company for the construction of the section between Mattawa and the Long Sault Rapids under the subsidy granted in 1892.

By the special Act 54-55 Vic., ch. 94 (1891), the company were empowered to convey or lease their road to the Canadian Pacific Railway Company, and also to extend the railway to the head of Lake Temiscamingue; the company's works to be completed by the 10th of July, 1896. The road is now controlled by the Canadian Pacific Railway Company.

By the Subsidy Act, 57-58 Vic. ch. 4 (1894), the subsidies previously granted were revised, balances unpaid were revoked, and additional subsidy was granted; the

## Department of Railways and Canals.

whole of the subsidies not to exceed \$274,940. Under date the 12th of September, 1894, a new contract was entered into with the company for the work, embracing the distance between Mattawa and Lake Kippewa.

By a separate contract, dated the 1st of June, 1894, the company undertook to build a truss bridge over the Ottawa, at Mattawa.

During the fiscal year 1888-89 the sum of \$26,360 was paid, making a total of \$52,760 paid to this company. No further payment was made until the fiscal year now past, but during this year payments have been made to the extent of \$233,198.95 making the total payments \$285,958.95, up to the 30th of June, 1895.

### Lotbinière and Megantic Railway Company.

(See Nos. 253 and 338.)

This company was incorporated by the Quebec Act, 52 Vic., ch. 89 (1889), for the construction of a railway from some point at or near the parish church of St. Jean Deschaillons, in the county of Lotbinière, to a point at or near Glen Lloyd, in the county of Megantic.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), a subsidy to the extent of \$48,000 was authorized for 15 miles of railway from a point at or near St. Jean Deschaillons toward Glen Lloyd.

On the 17th of July, 1893, a contract was entered into with the company for the work so subsidized, for which was substituted one dated the 27th of February, 1894, covering the distance from St. Jean Deschaillons to Lyster Station on the Grand Trunk Railway.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), a subsidy for a further distance of 15 miles was authorized, the limit being \$48,000.

A contract was entered into with the company on the 19th of November, 1894, covering the distance from Lyster Station to Lyster, 2½ miles, and 12½ miles from the end of the 15 miles built.

During the fiscal year the sum of \$38,000 was paid, making the total payments \$73,600 up to the 30th of June, 1895.

### Montfort Colonization Railway Company.

(See No. 245, 310 and 373.)

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

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

By the Subsidy Act, 55-56 Vic., (1893), this subsidy was revoked with an addition, specifying the gauge as "three feet."

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

During the past fiscal year the sum of \$35,200 has been paid, making the total payments \$67,200 up to the 30th of June, 1895.

**Montreal and Champlain Junction Railway Company.**

(See Annual Report for 1892-93.)

**Montreal and Lake Maskinongé Railway Company.**

(See Annual Report for 1890-91.)

**Montreal and Sorel Railway Company.**

(See Annual Report for 1892-93.)

**Montreal and Western Railway Company.**

(See Annual Report for 1893-94.)

**Montreal and Ottawa Railway Company.**

(Formerly the Vaudreuil and Prescott Railway Company.)

*Name changed by 53 Vic., ch. 58.)*

(See Nos. 97, 186, 237 and 320.)

By the Railway Subsidy Act of 1887, 50-51 Vic., ch. 24, the grant of a subsidy to the above company was authorized for 30 miles of their railway from Vaudreuil towards Hawkesbury, the extent of such subsidy being \$96,000.

A contract was made with the company on the 11th of February, 1889, for the distance named, starting from the Grand Trunk Railway at Vaudreuil. The date for completion was fixed as the 1st of August, 1891.

The Company, on the 4th of October, 1890, were authorized to open the portion of their road between Vaudreuil and Rigaud, 16 miles, for public traffic.

By the Act 53 Vic., ch. 2. (1890), a subsidy for a further distance of 30 miles towards Ottawa, \$96,000, was authorized. A draft contract covering the subsidy was approved by an Order in Council on the 21st September, 1891, but has not yet been signed.

By the Act 54-55 Vic., ch. 8 (1891), the unpaid balance, \$46,040, of the subsidy granted in 1887, was revoked.

In September, 1892, after inspection, permission was given to open for traffic the portion of the road between Vaudreuil and Pointe Fortune, 23½ miles.

## Department of Railways and Canals.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894) the unpaid balances of subsidies granted in 1887 and 1890 were revoked.

By an Order in Council of the 16th of April, 1894, the time for the completion of the 30 miles of railway from Vaudreuil towards Hawkesbury has been extended to the 1st of August, 1896. No payments were made during the past fiscal year; the total payments made remaining, as last year, at \$73,600.

This railway has been leased in perpetuity to the Canadian Pacific Railway Company.

### Napanee, Tamworth and Quebec Railway Company.

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

(See Nos. 13, 27, 57, 94, 107, 166, 256 and 273.)

In 1883 Parliament authorized a subsidy of \$89,600 to this company, covering their road from Napanee to Tamworth.

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

In the session of that year Parliament authorized the grant of a further subsidy, not exceeding \$3,200 a mile, or a total of \$70,406, for an extension of this company's road from Tamworth to Bogart and Bridgewater. In 1885, however, in substitution for this subsidy, Parliament authorized the grant to the company of a subsidy of \$70,000 for a line "from Tamworth towards Bogart and Bridgewater, 16 miles." This, again, was cancelled by the Act 49 Vic., ch. 10 (1886), a subsidy of \$70,000 being granted to the company for 18 miles of their railway from Tamworth to Tweed.

By the Act 50-51 Vic., ch. 24 (1887), a further subsidy to this company, not exceeding \$12,800, was authorized for 4 miles of their road to Tweed.

Under date the 25th of July, 1888, an Order in Council authorized entry into contract, and approved the location plans from Tamworth to Tweed, 20 miles. The contract was signed on the 31st of July, 1888, covering both subsidies.

By the Act 52 Vic., ch. 3 (1889), the grant of a further subsidy to this company was authorized for 7 miles of their railway from Yarker to Harrowsmith, and also a grant to a company for 3 miles of railway from Harrowsmith to Sydenham, the total being \$32,000. Under date the 4th of September, 1889, the company were admitted to contract for 3 miles, and under date the 26th of December, for the distance of 6 $\frac{1}{2}$  miles, from a point near Yarker to or near Harrowsmith.

By the Act 55-56 Vic., ch. 5 (1892), in lieu of the subsidy granted by the above Act for 3 miles, a subsidy not exceeding \$9,600 was granted for 3 miles from a point at or near Harrowsmith to a point at or near Sydenham. A contract was made with the company for this work on the 18th of September, 1893.

By the Act 55-56 Vic., ch. 5 (1892), a subsidy not exceeding \$64,000 was granted to this company for 20 miles of their railway, being for branches to be built to certain iron deposits. A contract was made with the company for one of these

branches (to Lake Sydenham) on the 11th of December, 1893, the distance being  $1\frac{37\frac{5}{100}}{100}$  miles. Under date the 30th of November, 1889, the company were allowed to open for traffic between Tamworth and Tweed, and between Yarker and Harrowsmith, and from Harrowsmith to Sydenham in November, 1893. During the last fiscal year no payments were made, the total payments up to the 30th of June, 1895, being \$208,732.80.

**Nakusp and Slocan Railway Company.**

(See No. 362.)

This company was incorporated by the Dominion Act, 56 Vic., ch. 56 (1893), with powers to construct a railway from a point at or near Nakusp, in British Columbia, to a point at or near the forks of Carpenter Creek, in the district of West Kootenay, the gauge to be either the standard gauge (4 feet  $8\frac{1}{2}$  inches) or a narrow gauge not less than 3 feet; also to run vessels on the lakes and rivers of the province, in connection with their railway. Powers were further conferred for the conveyance or lease of the road to the Canadian Pacific Railway Company.

By the Railway Subsidy Act, 57-58 Vic., ch. 4 (1894), the grant of assistance to the extent of \$121,600 was authorized for the said railway, estimated at 38 miles, and on the 23rd of October, 1894, a contract was made with the company for the work, the date for completion being fixed on the 1st of August, 1895, the standard gauge to be adopted.

The whole road has been completed, and in December 1894 was inspected, the actual distance being 39.80 miles, and the amount of subsidy applicable being consequently \$117,760, which amount has been paid during the fiscal year.

The road has been leased to the Canadian Pacific Railway Company for 25 years, under an agreement dated the 9th of August, 1893, approved by an Order in Council of the 18th of July.

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

(See Annual Report for 1888-89.)

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

(See No. 268.)

By the Subsidy Act, 55-56 Vict., ch. 5, the grant of assistance to the above company for  $12\frac{1}{2}$  miles of railway from Eureka Junction on the Intercolonial Railway, to a point at or near Sunnybrae, including a branch line to the charcoal iron furnace at Bridgeville, was authorized, the limit of aid being \$40,000.

Under date the 23rd of November, 1892, the company were admitted to contract for this work.

No payments were made during the fiscal year. The total payments up to the 30th of June, 1895, amount to \$38,400, covering 12 miles of railway.

**Northern and Pacific Junction Railway Company.**

(See Annual Report of 1890-91.)

## Department of Railways and Canals.

### Northern and Western Railway Company.

(See Annual Report of 1889-90.)

Also under head "Canada Eastern Railway Company," in present report.

### Nova Scotia Central Railway Company.

(See Nos. 129, 135 and 307.)

By the Subsidy Act of 1887, 50-51 Vic., ch. 24, the Nova Scotia Central Railway Company were subsidized for 34 miles of their railway, to an extent not exceeding \$108,800. Under an Order in Council of the 16th of September, 1887, the company were admitted to contract on the 17th of October, 1887, the works to be executed being a line of railway from Lunenburg, on the east coast of Nova Scotia, westward to a point in the district of New Germany, together with a spur, about  $\frac{3}{4}$  mile long, to Bridgewater Railway wharf, the whole to be completed by the 31st of December, 1889.

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

By the Subsidy Act, 56 Vic., ch. 2 (1893), the unpaid balance, \$4,500, was revoked. Up to the close of the fiscal year 1891-92, the total payments to this company amounted to \$230,700, covering the distance from Lunenburg to Middleton and the spur to Bridgewater, a total of  $73\frac{1}{2}$  miles. Authority for payment of the said balance of \$4,500 has been given by an Order in Council dated the 2nd of July, 1894, but no further payment has been made up to the 30th of June, 1895, pending decision on certain matters in litigation.

### Nova Scotia Southern Railway Company.

(See Nos. 207 and 272.)

This company was incorporated by the Nova Scotia Act, 51 Vic., ch. 82, as the "Annapolis and Atlantic Railway Company." The name was changed as above by the Act 56 Vic., ch. 65.

By the Dominion Subsidy Act, 55-56 Vic., ch. 5 (1892), a subsidy (taking the place of one previously granted), was authorized for 75 miles of railway from Sand Point, Shelburne Harbour, N.S., to Annapolis Royal, and to a point of junction with the Nova Scotia Central Railway, at or near New Germany, the subsidy limit being \$240,000.

The above company having applied for the subsidy, a contract, dated the 12th of January, 1894, has been entered into with them for the work of building a line from Sand Point towards New Germany, and approval has been given by an Order in Council dated the 25th of August, 1894, to the location of the railway for the whole distance, 75 miles.

No payment has been made up to the 30th of June, 1895.

## Ontario and Pacific Railway Company.

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

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

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

By the Act 52 Vic., chap. 3 (1889), a subsidy not exceeding \$172,400 was authorized to this company for a line from Cornwall to Ottawa, but no contract was entered into for the work.

By the Subsidy Act of 1892, 55-56 Vic., ch. 5, the subsidy granted in 1889 was revoked, the length being set down as  $53\frac{87}{100}$  miles. Under date the 1st of June, 1895, a contract was entered into with the company for the construction of this line from Cornwall to Ottawa,  $53\frac{87}{100}$  miles, the work to be completed by the 1st of August, 1896.

## Ontario and Quebec Railway Company.

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

## Ontario, Belmont and Western Railway Company.

(See No. 246.)

This company was incorporated by the Ontario Act, 54 Vic., ch. 90 (1891), for the construction of a railway from the Midland Railway of Canada at either Hastings or Campbellford to some point on the Central Ontario Railway within the township of Marmora, county of Hastings.

By the Subsidy Act, 55-56 Vic., ch. 5 (1892), the grant of a subsidy to this company to the extent of \$32,000, was authorized for 10 miles of railway from the Belmont iron mines to the Canadian Pacific and the Central Ontario Railway.

On the 9th of March, 1893, a contract was entered into with the company for this work, namely, from the Belmont mines to the junction of the two railways named, the road to be completed by the 1st of August, 1896.

No portion of this subsidy has been paid up to the 30th of June, 1895.

## Orford Mountain Railway Company.

(See Annual Report for 1893-94.)

By the Subsidy Act, 53 Vic., ch. 2, the grant of subsidy, limited to \$99,200, was authorized in favour of the above company, for 31 miles of their railway between Eastman and Kingsbury, Que., and on the 16th of December, 1891, the company were



## Department of Railways and Canals.

admitted to contract for the work for a distance of 10 miles, namely, from Eastman to Lawrenceville. The work was completed, and the subsidy was paid in 1892.

By an Order in Council, dated the 20th June, 1892, authority was given for entry into contract with the company for the balance of the work, 16½ miles, between Lawrenceville and Kingsbury, and such contract was signed on the 10th of September, 1892.

The road between Lawrenceville and Kingsbury has been completed, and during the past fiscal year, the subsidy applicable thereto, \$52,800, was paid, making the total payments to this company \$84,800, the whole amount applicable.

### Ottawa, Arnprior and Parry Sound Railway Company

(See Nos. 92, 134, 199, 242, 276 and 277.)

This company was formed by the amalgamation, under the Act 54-55 Vic., ch. 93, of the Ottawa and Parry Sound Railway Company, incorporated by the Act 51 Vic., ch 35, and the Ottawa, Arnprior and Renfrew Railway Company, incorporated by the Act 51 Vic., ch. 71. The company has powers to build a line of railway from the city of Ottawa through Arnprior, Renfrew, Eganville and Killaloe, to a point on the Georgian Bay at or near the village of Parry Sound.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), there were granted to this company the following subsidies (in lieu of subsidies previously granted but not utilized):—

- (a.) For 22 miles of railway from a point on the Canadian Pacific Railway to Eganville, a subsidy limited to \$70,400.
- (b.) For 30 miles of railway from Eganville to Barry's Bay, a subsidy limited to \$96,000.
- (c.) For 55 miles of railway from Barry's Bay towards the Northern Pacific Junction Railway, a subsidy limited to \$6,400 a mile on the first half of that division, and to \$3,200 a mile on the second half, not exceeding in the whole \$264,000.

The first two subsidies were covered by a contract dated the 29th of September, 1892; the starting point on the Canadian Pacific Railway being Renfrew, and the date for completion being fixed as the 1st of August, 1896.

The third subsidy, from Barry's Bay towards the Northern Pacific Junction Railway, was covered by a contract with the company dated the 8th of November, 1892, for which was substituted a contract dated the 20th of September, 1894.

The location plans have been approved for the whole distance covered by the three subsidies.

The sections between Ottawa and Renfrew, were opened for traffic in September and December, 1893.

During the past fiscal year, payments have been made to the extent of \$249,280, making the total payments to the company \$350,400, up to the 30th of June, 1895. The distance covered thereby is to the end of the 30th mile west from Barry's Bay, or a total of 82 miles west from Renfrew.

**Ottawa and Gatineau Valley Railway Company.**

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

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

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

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

By the Subsidy Act, 56 Vic., ch. 2, (1883), the unpaid balance, \$89,248, was revoked.

By the Subsidy Act, 57-58 Vic., ch. 6 (1894), authority was given for subsidizing to the extent of \$64,000, a further distance of 20 miles from the end of the 62 miles already subsidized, but no contract has yet been made for the work.

During the past fiscal year, no portion of the subsidy has been paid. The total payments up to the 30th of June, 1895, amounts to \$284,128.

**Oshawa Railway and Navigation Company.**

*Name changed to the* **Oshawa Railway Company**, by 54-55 Vic., ch. 91.

(See Nos. 112, 233 and 314.)

By the Act 50-51 Vic., ch. 24 (1887), the grant of a subsidy, to the extent of \$22,400, was authorized for seven miles of this company's railway, extending from Port Oshawa towards Raglan; they were admitted to contract on the 20th of July, 1889. This subsidy was renewed by the Act 54-55 Vic., ch. 8; and by the Act 56 Vic., ch. 2, 1893, it was revoked in such form as to admit of payment on completion of named sections.

Entry into contract accordingly has been authorized, but no contract has yet been signed.

By the special Act 54-55 Vic., ch. 91, the corporate powers of the company were revived, and its name was changed as above.

No portion of the subsidy has been paid up to the 30th of June, 1895.

**Parry Sound Colonization Railway Company.**

(See Nos. 153, 312, 342.)

By the Subsidy Act of 1889, 52 Vic., ch. 3, authority was given for the grant of a subsidy to this company, not exceeding \$128,000, for 40 miles of railway from the village of Parry Sound to the village of Sundridge, or some other point on the line of the Northern and Pacific Junction Railway.

## Department of Railways and Canals.

On the 21st of July, 1890, the company were admitted to contract accordingly, the line to run from the village of Parry Sound through the townships of Foley, Christie, Monteith, McMurrich and Parry, joining the line of the Northern and Pacific Railway at Scotia, or a point about two miles from Elmsdale station. The date for completion has been extended to the 1st of August, 1897. The location for 50 miles has been approved by Order in Council, covering the distance between the Northern Pacific Junction Railway and Parry Sound.

By the Act 56 Vic., ch. 2 (1893), the unpaid balance of subsidy, \$97,600, was revoked.

By the Act 57-58 Vic., ch. 4 (1894), the grant of a further subsidy, limited to \$64,000, was authorized, for 20 miles of this company's railway east from Parry Sound.

During the past fiscal year there was paid the sum of \$68,780, making the total payments up to the 30th of June, 1895, \$128,000, covering 40 miles of railway built,

### Philipsburg Junction Railway and Quarry Company.

(See Nos. 255 and 322.)

This company was incorporated by the Quebec Act 51-52 Vic., ch. 107 (1888) for the construction of a railway from Philipsburg to Stanbridge.

By the Subsidy Act, 55-56 Vic., ch. 5 (1892), the grant of a subsidy to the extent of \$21,600 was authorized for a railway between the points named,  $6\frac{7}{10}$  miles.

On the 27th of February, 1893, a contract was entered into with the company for this work, the distance being set down as  $6\frac{3}{4}$  miles.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), a subsidy, in part a revote, was authorized for the small difference in length and for a short branch, in all, \$2,912.

During the past fiscal year, \$2,912 was paid, making a total of \$21,600, the full amount of the subsidy, covering the distance, 5.84 miles, from Stanbridge Station on the Central Vermont Railway to Philipsburg.

### Port Arthur, Duluth and Western Railway Company.

(Formerly the Thunder Bay Colonization Railway Company.)

(See Annual Report of 1892-93.)

### Pontiac and Renfrew Railway Company.

(See Annual Report of 1889-90.)

### Pontiac Pacific Junction Railway Company.

(See Nos. 25, 137, 211, 329, 330 and 331.)

This company was incorporated by the Dominion Act 43 Vic., ch. 55 (1880), with powers to construct a railway from a point on the line of the Quebec, Montreal, Ottawa and Occidental Railway, at or near Hull or Aylmer, to a point in the

county of Pontiac, suitable for crossing the River Ottawa, thence to Pembroke to connect with the Canada Central Railway.

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

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

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

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

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

By the Act 53 Vic., ch. 68 (1890), the time for completion of the railway to the town of Pembroke, and of the bridge over the River Ottawa, at or near the city of Ottawa, which the company were empowered to construct by the Act 45 Vic., ch. 69, was extended to the 22nd of May, 1892. The same Act gave the company power to extend their line from the said bridge to the canal basin in the city of Ottawa.

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

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

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), the subsidies voted in 1888 were revoked, subject to the condition that the entire work subsidized on this railway should be completed within four years. The time for completion is thus extended to the 23rd of July, 1898.

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

## Department of Railways and Canals.

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

The road is open from Aylmer to Waltham, 71 miles.

Up to the close of the fiscal year 1887-88, a total of \$174,828 had been paid out of the subsidy voted in 1884. During the past fiscal year the sum of \$18,750 has been paid, making a total of \$193,578.

### Quebec Central Railway Company.

(See Nos. 22, 142, 219 and 321.)

This company was subsidized in 1884, to the extent of \$211,200, in aid of the construction of 66 miles of their railway from Beauce Junction to the International Boundary.

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

The location of the first 23 miles was approved of by an Order in Council of the 8th of May, 1885. The amount of the subsidy paid up to the end of the fiscal year 1885-86, under an Order in Council of the 14th of August, 1885, was \$60,342, covering 15½ miles of road inspected, starting from Beauce Junction.

In lieu of the balance of this subsidy, which lapsed on the 1st of July, 1888, authority was given by the Act 51 Vic., ch. 3 (1888), for the grant of a subsidy to this company of \$21,191.54 a year, for 20 years, equivalent to a cash grant of \$288,000, for a line of railway from St. Francis station to a point on the Atlantic and North-west Railway, near Moose River, 90 miles. No contract was made for this work.

By the Act 53 Vic., ch. 2 (1890), in lieu of the subsidy so granted, the company may receive the same amount for a similar term of years, or a guarantee of interest on bonds for a like sum, for 90 miles of their railway from St. Francis station on their line to a point on the Atlantic and North-western Railway near Moose River, or from a point on their line between the Chaudière River and Tring station to a point on the International Railway at or near Lake Megantic; the first annual payment to be made at the end of twelve months from the date of the certificate of completion. A contract was entered into for this subsidy on the 30th of June, 1892, the work to be completed by the 1st of July, 1894.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), authority was given for the payment of the subsidy granted by the Act of 1890, as a cash subsidy, at the present worth \$288,000; payment to be made on completion, inspection, and acceptance of the railway. An Order in Council of the 16th of June, 1894, has authorized this mode of settlement of subsidy, but nothing can be paid until an inspection, to be made on completion of the above road, has shown it to be in a satisfactory condition.

In view of the terms of the subsidy, there has been no further payment beyond the \$60,342 made in 1885-86, up to the 30th of June, 1895, but at that date the road was nearly completed.

## Quebec and Lake St. John Railway Company.

(See Nos. 2, 14, 40, 82, 126, 140, 177, 220, 232, 300 and 347.)

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. By the Act of 1885, a subsidy of \$96,000 was authorized for a line extending from the point of their junction with the North Shore Railway (4 miles from Quebec) up to St. Raymond (36 miles from Quebec), conditionally upon the construction of their line to a point 50 miles north of St. Raymond; and by the Act of 1886, a subsidy was authorized, not exceeding \$186,295, for the portion, 95 miles, extending from the point 50 miles north of St. Raymond to Lake St. John.

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

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

By the Act 21 Vic., ch. 3, a subsidy to the extent of \$96,000, previously granted to the Saguenay and Lake St. John Railway Company, for 30 miles of their railway, from Lake St. John towards Chicoutimi, was transferred to this company, and under authority of an Order in Council of the 17th of November, 1888, a contract was made with them on the 5th of December for this work, which starts from Chambord Junction, near Lake St. John, on the main line; the work to be completed by the 1st of August, 1890.

By the Act 52 Vic., ch. 3 (1889), a further subsidy of \$64,000 was granted for an additional 20 miles, making the total subsidy for this branch \$160,000. Under date the 17th of October, 1892, a contract was entered into with the company for this work.

By the Act 53 Vic., ch. 2 (1890), a subsidy to this company to an extent not exceeding \$30,000, was authorized for a railway bridge over the River St. Charles; also a subsidy, limited to \$38,400, for 12 miles of railway from Lorette via Charlesbourg to Quebec. Under date the 2nd of December, 1890, both these subsidies were covered by one contract, the work to be completed by the 1st of October, 1891.

By the Act, 54-55 Vic., ch. 8, there was expressly voted the difference, \$5,250, between the \$30,000 mentioned in the above subsidy for the St. Charles bridge and the amount actually paid the company.

## Department of Railways and Canals.

By the Act 55-56 Vic., ch. 5, clause 5 (1892), authority was given for the payment of the unpaid balance of the subsidy granted in 1889, and also for the payment of the unpaid balance, \$12,800, of the subsidy granted in 1887. This last, representing 4 miles of railway built towards Roberval, was covered by a contract made on the 17th of October, 1892.

By the Subsidy Act, 56 Vic., ch. 2 (1893), the unpaid balance, \$81,040, of the subsidy granted by 51 Vic., ch. 3, was revoked.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), a subsidy was voted to this company for 2 miles of their Chicoutimi branch to deep water at Chicoutimi, also for a further distance of 12 miles from the 52nd mile of that branch to Ha! Ha! Bay, in all \$44,800.

During the past fiscal year no payments were made. The total payments to the company up to 30th of June, 1895, amount to \$1,002,999.50, covering the main line and 50 miles of the Chicoutimi Branch.

### Quebec, Montmorency and Charlevoix Railway Company.

(See Nos. 164 and 304.)

By the Subsidy Act, 52 Vic., ch. 3 (1889), the grant of a subsidy to the extent of \$96,000 to the above company was authorized for 30 miles of their railway from the east bank of the River St. Charles to or near to Cape Tourmente, Quebec.

A contract was entered into with the company on the 14th of November, 1889, for this work, from Hedleyville to St. Joachim.

By the Subsidy Act, 56 Vic., ch. 3 (1893), the unpaid balance, \$30,400, of the previous subsidy was revoked.

During the fiscal year 1889-90, the sum of \$65,600 was paid from this subsidy, the distance covered being 20½ miles, viz., from Quebec (the east side of the River St. Charles) to Ste. Anne. During the fiscal year the balance of the 30 miles subsidized has been completed, and the sum of \$30,400 paid, making the total payments \$96,000, the whole amount of the subsidy.

### Shuswap and Okanagan Railway Company.

(See No. 167.)

This company was incorporated by the Act 49 Vic., ch. 82 (1886), for the construction of a line of railway from a point on the Canadian Pacific Railway, at Sicamous Narrows, B.C., running up the left bank of the Shuswap River to a point near the north end of Lake Okanagan.

By 51 Vic., ch. 88 (1888), this Act was amended, and the company were allowed two years to commence and five to complete their main line.

By the Subsidy Act of 1889, a subsidy to the extent of \$163,200 was authorized for the said railway, the estimated distance being 51 miles.

The contract for this work was signed on the 11th of February, 1890. The road is completed.

During the fiscal year the sum of \$300 was paid to the company, making the total payments up to the 30th of June, 1895, \$163,200, the full amount of the subsidy.

This road is leased to the Canadian Pacific Railway for a term of 25 years, under an agreement confirmed by the Act 54-55 Vic., ch. 72 (1891).

South Norfolk Railway Company.

(See Annual Report of 1888-89.)

South Shore Railway Company.

(See No. 365.)

This company, incorporated by chap. 130 of the Statutes of Nova Scotia of 1892, received a Dominion charter by the Act 58-59 Vic., ch. 64 (1895), with powers to construct a line of railway from a point near the harbour of Yarmouth, N.S., then passing through the counties of Yarmouth, Shelburne, Queen's, Lunenburg and Halifax to a point in or near the city of Halifax; also a branch line to Lockeport and Caledonia.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the grant of a subsidy to this company of \$3,200 a mile, limited to \$112,000, was authorized for 35 miles of railway from Yarmouth towards Shelburne and Lockeport.

Under date the 28th of February, 1895, a contract was entered into with the company for the work so subsidized, the time for completion being fixed as the 1st of August, 1897. The location plans for the whole distance have been approved by an Order in Council dated the 14th of February 1895.

No portion of the subsidy has been paid up to the 30th of June, 1895.

St. Catharines and Niagara Central Railway Company.

(See Nos. 96, 176, 190, 265 and 319.)

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

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

On the 20th of December, 1888, the road having been built and inspected, the company were permitted to open it for traffic. The sum of \$26,640 was paid to the company in the fiscal year 1888-89.

By the Act 52 Vic., ch. 3 (1889), a subsidy for 20 miles of this road was authorized, limited to \$64,000, and on the 1st of August, 1890, the contract was signed the extension being from their present terminus at St. Catharines towards Hamilton.

By the Act 53 Vic., ch. 7 (1890), a subsidy limited to \$44,800 was authorized for a further distance of 14 miles.



## Department of Railways and Canals.

By the Act 50-51 Vic., ch. 5 (1892), in lieu of the subsidies granted in 1889 and 1890, there was granted an annual subsidy for 20 years, calculated on the basis of 3½ per cent of the amount, not to exceed \$108,000, granted for the 34 miles in question; payment of the first half-yearly instalment to be made 6 months after the date of the Chief Engineer's certificate of completion.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), the grant of a subsidy to this company for 34 miles of their railway from St. Catharines to Hamilton was authorized, the amount not to exceed \$108,800.

During the fiscal year 1890-91, the sum of \$11,760 was paid, covering the distance, 12 miles, between St. Catharines and Niagara River, making a total of \$38,400 paid to this company. No further payments have been made up to the 30th of June, 1895.

### St. Clair Frontier Tunnel Company.

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

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

(See Annual Report of 1893-94.)

### Stewiacke Valley and Lansdowne Railway Company.

(See Nos. 87, 232, 254 and 258.)

By the Act 49 Vic., ch. 18 (1886), a subsidy was authorized for a railway from a point on the Intercolonial Railway through the Stewiacke Valley, affording communication with the Iron Mines, Spring Side, Upper Stewiacke and Musquodoboit settlements, 25 miles, the extent of aid not exceeding \$80,000. The Stewiacke Valley and Lansdowne Railway Company having applied for this subsidy, a contract was made with them on the 17th of December, 1886, the line to be completed by the 1st of December, 1889.

By the Act 53 Vic., ch. 2 (1890), the above subsidy was, in effect, revoked, and the old contract having been cancelled, a new contract with this company was entered into on the 30th of August, 1890. Completion was called for by the 1st of September, 1892.

By the Act 55-56 Vic., ch. 5 (1892), the same subsidy was, in effect, revoked.

By the Act 52 Vic., ch. 3 (1889), a subsidy was granted for a railway from Truro or a point between Truro and Stewiacke to Newport or Windsor, 49 miles, the limit being \$156,800. A contract was made with this company on the 30th of August, 1890, for the work; the line to run from Brockville station, on the Intercolonial, to Newport station, on the Windsor Branch Railway; the line to be completed by the 1st of September, 1893.

By the Act 55-56 Vic., ch. 5 (1892), this subsidy was, in effect, revoked.

The location plans have been approved for this distance.

No portion of any of the above subsidies has been paid up to the 30th June, 1895.

## St. Lawrence and Adirondack Railway Company.

(See Annual Report for 1893-94.)

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

*(Name changed to "The Laurentian Railway Company" by Provincial Act 51-52 Vic., ch. 108.)*

(See Annual Report for 1891-92.)

## St. Louis and Richibucto Railway Company.

(See Annual Report of 1884-85.)

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

(See Annual Report for 1892-93.)

## Thousand Islands Railway Company.

(See Nos. 182 and 269.)

By the Subsidy Act, 52 Vic., ch. 3 (1889), the grant of a subsidy to the extent of \$54,400 to the above company, for 4 miles of their railway from a point near the River St. Lawrence, in the village of Gananoque Junction, on the Grand Trunk Railway, and for 13 miles of their railway from Gananoque Junction to a point of junction with the Brockville, Westport and Sault Ste. Marie Railway, was authorized.

A contract was made with the company for this work on the 24th of October, 1889, the 4-mile section to be built by the 1st of July, 1890, and the 13-mile section by the 1st of August, 1893. In the fiscal year 1889-90, the sum of \$10,400 was paid for the section, 3½ miles, from Gananoque to the Grand Trunk Railway, completed.

By the Act 55-56 Vic., ch. 5 (1892), in lieu of the unpaid balance, \$44,000, of the above subsidy, there were granted railway subsidies for the extension of the railway, one, the northern, to connect with the Brockville, Newport and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, for which the limit is \$30,000; the other, the southern, and across the mouth of Gananoque River, for which the limit is \$14,000.

Under date the 30th of November, 1892, a contract was entered into with the company for this work; the date for completion being fixed as the 1st of August, 1896.

During the past fiscal year no payments were made. The total paid up the 30th of June, 1895, is \$24,400.

## Tobique Valley Railway Company.

(See Annual Report for 1893-94.)

## Toronto, Grey and Bruce Railway Company.

(See Annual Report for 1887-88.)

## Department of Railways and Canals.

### United Counties Railway Company.

(See Nos. 297 and 344.)

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

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

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

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

During the past fiscal year, the sum of \$42,728.15 was paid, making the total payments \$131,701.15.

### Vaudreuil and Prescott Railway Company.

(See *Montreal and Ottawa Railway Company*.)

### Waterloo Junction Railway Company.

(See Annual Report for 1891-92.)

### Western Counties Railway Company.

(Name changed to "The Yarmouth and Annapolis Railway Company" by 56 Vic., ch. 63.)

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

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

The company agreed to withdraw a suit pending against the Crown in respect of the Windsor Branch Railway, releasing the Government from all claims, and also releasing to the Government all right and title to the branch. They also undertook to build and complete the railway between Annapolis and Digby, N.S., and to complete, equip and put in first-class order the whole of the line from Yarmouth to Annapolis; and also to settle all liens on their property, and their indebtedness. In order to the fulfilment of the above, they undertook to deposit with the Government the total proceeds of the sale of their debentures, &c., the issue of which was limited to \$4,200,000. The Government, on its side, in consideration of these pre-

mises, undertook to pay to the company the sum of \$500,000, the amount to be credited to the company, and added to the proceeds of the sale of the debentures, which proceeds the Government agreed to hold for the purpose, the whole to be applied, under certificate of the Government Chief Engineer and Order in Council, to the payment of interest on the debentures, &c., to be issued, to the building and completion of the railway above mentioned, and to the satisfaction of the company's existing obligations; the balance, if any, to be paid to the company. The dates to which the company were bound, as modified by the terms of the Act, were as follows:—

Work to be commenced by the 13th of July, 1887, and the railway between Annapolis and Digby to be completed by the 12th of September, 1888, the company to complete to the satisfaction of the Government, by the 12th of September, 1887, all arrangements for the settlement of its indebtedness. Provision was made, also, for the completion of the line between Annapolis and Digby by the Government, at its option, from the funds in its hands, in the event of failure on the part of the company to make commencement of work, to progress with the same, or to satisfy the Government as to the arrangement of the settlement of its indebtedness by the dates so fixed.

The company did not make deposit of moneys; nor did they take any practical steps to carry out the work contemplated. Under the circumstances, and in view of representations urging that the Government should itself undertake the work, a survey was made of the country between Digby and Annapolis, under instructions given in October, 1888.

By the special Act, 52 Vic., ch. 8 (1889), authority was given for the construction of this link of railway out of the appropriation of \$500,000 granted by the Act 50-51 Vic., ch. 25. The work was, accordingly, taken in hand by the department, and completed. The company was placed in possession for operating purposes on the 27th of July, 1891.

On the 17th of January, 1894, the company executed a deed of release to the Government in respect of all claims, and on the 1st of February, letters patent were issued, vesting the said section of railway in the company.

The total Government expenditure up to the 30th of June, 1895, is \$619,225.80.

By the special Act 57-58 Vic., ch. 69 (1894) authority was given for the purchase of the Yarmouth and Annapolis Railway by the Windsor and Annapolis Railway Company, in accordance with an agreement between the two companies, dated the 12th of October, 1893, and for the change of the names of the companies to "The Dominion Atlantic Railway Company."

**West Ontario Pacific Railway Company.**

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

*(See Annual Report of 1890-91.)*

**Woodstock and Centreville Railway Company.**

*(See Nos. 131, 203, 266, 281 and 335.)*

By the Act 50-51 Vic., ch. 24 (1887), (see Nos. 131, 203, 266, 281 and 335) the grant of a subsidy to the extent of \$64,000 was authorized for a railway from Woodstock towards Centreville, 20 miles.

## Department of Railways and Canals.

The above railway company having applied and being approved, contract was made with them on the 6th of May, 1889, for the distance named; the line to start from Upper Woodstock station, on the New Brunswick Railway; the work to be completed by the 1st October, 1890, the date being subsequently extended to the 1st of October, 1893.

By the Act 53 Vic., ch. 2 (1890), a subsidy, limited to \$19,200, was authorized for a further distance of 6 miles to the International Boundary.

By the Act 55-56 Vic., ch. 5 (1892), the subsidy granted in 1887 was, in effect, revoked.

By the same Act, the subsidy granted in 1890, for the further distance to the boundary was in effect revoked.

A contract, dated the 16th of September, 1892, was made with the company, to construct the 26 miles so subsidized, the date for completion being fixed as the 1st January, 1894.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), the two subsidies granted in 1887 and 1890 were revoked, namely, for 26 miles of railway from Woodstock to the International Boundary, \$83,200.

By an Order in Council of the 24th of July, 1894, the contract time has been extended to the 1st of August, 1896.

No portion of the subsidy has been paid up to the 30th of June, 1895.

Yarmouth and Annapolis Railway Company.

(See *Western Counties Railway Company*.)

### LAND SUBSIDIES.

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

They are enumerated here because the engineering details have been dealt with by this department, the certificate of whose officer is required prior to handing over to the company concerned any part of the subsidy. (The numbers given refer to the special "Land subsidies" list. See Appendix 10, page 228.)

Alberta and Athabasca Railway Company.

(Name changed by 52 Vic., ch. 65, to the "North-west Railway Company of Canada," which see.)

Alberta Railway and Coal Company.

(See Annual Report for 1892-93.)

(See also "North-western Coal and Navigation Company," in Annual Report of 1891-92.)

## Brandon and South-western Railway Company.

(See No. 19, Land subsidies.)

By an Order in Council, dated the 23rd of November, 1889, but subject to the approval of Parliament, and contingent on their obtaining an Act of incorporation from the Dominion, this company has been granted a subsidy of 6,400 acres per mile in aid of a railway from a point in Township 1, in either Range 23 or 24, west of the 1st Principal Meridian, to Deloraine, Manitoba, about 17 miles. This subsidy was confirmed by the Act 53 Vic., ch. 4. The company was incorporated under a provincial Act, but received a Dominion charter by the Act 53 Vic., ch. 86 (1890). Under the said Order in Council, the subsidized section was to be completed and running by the 1st of May, 1891. Location plans and profiles have been approved by an Order in Council, dated the 19th of February, 1892, showing the proposed line from a point of junction with the Souris Branch of the Canadian Pacific Railway to the Turtle Mountain coal fields. A revised location was approved by an Order in Council of the 3rd of October, 1894.

By the special Act 57-58 Vic., ch. 65, the company's charter was revived.

By the Land Subsidies Act, 57-58 Vic., ch. 6 (1894), the subsidy authorized in 1890 was revoked.

## Calgary and Edmonton Railway Company.

(See Annual Report for 1892-93.)

## Canadian Pacific Railway Company.

(See Annual Report for 1892-93.)

## Great North-west Central Railway Company.

(See No. 7, Land subsidies.)

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

This concession did not result in the construction of any section of the road; and difficulties arising, and other applications being put forward for the work, the Act 49 Vic., ch. 11 (1886), granting aid to the extent of 6,400 acres per mile for the same, was made applicable either to the company named or to such other company as might undertake the construction of the road. The Great North-west Central Railway Company was incorporated by an Order in Council of the 22nd of July, 1889, in conformity with the provisions of the Act; a second Order, of the 3rd of August amending such charter, and the whole being confirmed and ratified by the Act

## Department of Railways and Canals

51 Vic., ch. 85 (1888). A section of such charter giving running powers to the Canadian Pacific Railway was repealed by 52 Vic., ch. 67 (1889).

By an Order in Council, also of the 22nd July, 1886, the subsidy referred to was granted to this company, the contract itself being signed on the 12th of September, 1887. Under successive Orders in Council the time for completion has been extended.

On the 3rd of September, 1890, an Order in Council was passed accepting as completed the first 50-mile section.

By an Order in Council, dated the 7th of December, 1891, extension of time was accorded—subject to the condition that the first 50 miles should be effectively operated and maintained on and after the 15th of that month, as follows:—100 miles from the end of the first 50 miles by the 30th November, 1892, and 300 miles further (or whatever distance may be required to complete the road to Battleford) by the 30th of November, 1893.

The company reported the first 50 miles as having been opened for traffic on the 16th of December, 1891.

On the 20th of June, 1892, an Order in Council was passed approving of the proposed location for the second 50-mile section.

By the special Act 58-59 Vic., ch. 48 (1894), the charter time for completing this railway to the Rocky Mountains was extended to the 22nd of May, 1902, provided that before the end of 1897, and each year thereafter, not less than 20 miles be completed.

Lac Seul Railway Company.

(See Annual Report of 1891-92.)

Manitoba and North-western Railway Company.

(See Land subsidies Nos. 4 and 6, also Money subsidies No. 358.)

This company was incorporated by the Provincial Act 43 Vic., ch. 35 (1880), under the name of the Westburne and North-western Railway Company, and received a Dominion charter by the Act 45 Vic., ch. 80 (1882). In 1883 its name was changed to the Manitoba and North-western Railway Company. Various Acts followed in subsequent years, defining and extending the company's powers.

In 1893, however, these were all repealed, being consolidated in an Act 56 Vic., ch. 52. This Act gave specific powers for the construction of (a) an extension of the main line from the terminus at Yorkton, to, or near to, Prince Albert, (b) an extension of the Shell River Branch to the northern or western boundary of the province, and other branches from the main line. The company was required to construct not less than 20 miles a year, but by a subsequent Act, chap. 79, of 1894, nine years have been allowed for the completion of the extension authorized, such portion, not exceeding 20 miles a year, to be built each year as may be prescribed by the Governor in Council.

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

A grant was made to the company by Order in Council of the 4th October, 1884 cancelling previous Orders. The time for completion was fixed by Order in Council of the 6th of May, 1885, as at a rate of 50 miles a year.

By the 1st of December, 1885, the company had built and equipped 131 miles of road.

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

This grant was made to the company by Order in Council of the 24th of May, 1886. Under Orders in Council of the 16th and 21st of September, 1886, the line was permitted to start from Binscarth, the Order first named approving the location to Russell, up to which point the road has been built. This branch, 11½ miles long, is in operation.

By the Subsidy Act of 1894, 57-58 Vic., ch. 4, the grant of a subsidy to this company, limited to \$320,000, was authorized for the construction of 100 miles of an extension of the main line towards Prince Albert, the company relinquishing 3,200 acres per mile of their land grant.

The main line is in operation from Portage la Prairie to Yorkton, 223 miles.

#### Manitoba and South-eastern Railway Company.

(See Annual Report for 1893-94.)

#### Manitoba South-western Colonization Railway Company.

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

(See Annual Report for 1890-91.)

#### Medicine Hat Railway and Coal Company.

(See No. 12, Land subsidies.)

By the Act 50-51 Vic., ch. 23 (1887), authority was given for the grant to the above company of Dominion lands to the extent of 6,400 acres per mile, for a railway from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway, to the coal fields in or near Townships Nos. 12 and 13, Range 6, west of the 4th Principal Meridian, a distance of about 8 miles.

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

By an Order in Council of the 24th of January, 1889, approval was given to a draft of a formal contract with the company, and an extension of time to the 2nd of June, 1890, was granted for completion of the road. A contract was signed on the 14th of February, 1890, for this work.

By the special Act 54-55 Vic., ch. 79 (1891), the charter of the company was revived and its powers were extended, and by the special Act 57-58 Vic., ch. 80, the time limit for completion was further extended to the 1st of January, 1898.



## Department of Railways and Canals.

North-western Coal and Navigation Company

*(Purchased by the Alberta Railway and Coal Company.)*

(See Annual Report for 1891-92.)

North-western Railway Company of Canada.

*(Formerly the Alberta and Athabasca Railway Company.)*

(See Annual Report for 1891-92.)

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

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

(See Annual Report for 1891.)

Red Deer Valley Railway and Coal Company.

(See Nos. 14 and 26, Land subsidies.)

This company was incorporated by the Act 52 Vic., ch. 52, for the construction of a railway from a point near Calgary, N.W.T., to a point on the Red Deer River, in Township 32, Range 21, west of the 4th Principal Meridian, the route being defined; also from a point at or near Cheadle station, on the Canadian Pacific Railway, northerly to a point of junction with the line from Calgary, in or near Township 26, Range 25, west of the 4th Principal Meridian, with other branches indicated.

On the 28th of November, 1888, an Order in Council authorized the grant, subject to approval by Parliament, of a subsidy in land to the extent of 6,400 acres per mile for the line from Cheadle station to a point in or near Township 29, Range 23, west of the 4th Meridian, a distance of about 55 miles. This was confirmed by the Land Subsidy Act, 52 Vic., ch. 4 (1889).

By the Act 54-55 Vic., ch. 9, the above subsidy was cancelled, and in lieu thereof there was granted a subsidy, not exceeding 6,400 acres per mile, for the company's railway from Calgary to a point in or near Township 29, Range 23, west of the 4th Meridian, a distance of about 55 miles.

On the 17th of June, 1893, a contract was entered into with the company for the lines so subsidized, the work to be completed by the 1st of November, 1894.

By an Order in Council of the 28th February, 1894, the time for completion was extended to the 1st of November, 1895.

Winnipeg and Hudson Bay Railway and Steamship Company.

*[Name changed to Winnipeg Great Northern Railway Company by the Act 57-58 Vic., ch. 94 (1894).]*

(See No. 1, Land subsidies, and Special Act, 54-55 Vic., ch. 81.)

By 47 Vic., ch. 25, clause 7 (1884), authority was given for the grant of aid or a line from some point on the Canadian Pacific Railway to Hudson Bay, viz.,

for each mile in Manitoba, 6,400 acres, and in the North-west Territories, 12,800 acres.

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

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

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

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

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

	Acres.
Division A.—From the Canadian Pacific Railway to the northern boundary of Manitoba—estimated distance, 225 miles.....	1,440,000
Division B.—From the boundary to the terminus near the mouth of the Nelson River, Hudson's Bay—estimated distance, 425 miles.....	5,440,000
Division C.—The Branch, from a point on the main line, near the northern extremity of Lake Winnipeg, to intersection with the Manitoba and North-western Railway—estimated distance not to exceed 250 miles (grant to be subject to approval by Parliament) .....	1,600,000

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

In April, 1888, the Chief Engineer of Government Railways reported, showing that 40 miles of road were completed, with the exception of certain station buildings, &c.

By an Order in Council dated the 16th of September, 1891, the dates for the completion of the company's road have been extended as follows:—

From the end of the 40 miles already built to a point on the south shore of the River Saskatchewan, near the western end of Cedar Lake, or between Cedar Lake

## Department of Railways and Canals

and Grand Rapids, a distance of about 250 miles, by the 21st of June, 1894 (the limit allowed by their charter as amended by 53 Vic., ch. 80). This Order in Council approved of the draft of a definite agreement to be made with the company for the work, and the agreement was duly signed on the 18th of September, 1891.

By the special Act 54-55 Vic., ch. 81, the entry into a contract with this company was authorized for the conveyance of men, supplies, materials and mails over the portion of this line between Winnipeg and the River Saskatchewan for an annual payment of \$80,000 a year, for 20 years. Under authority of an Order in Council, an agreement was made with the company accordingly on the 18th of September, 1891.

Under date the 8th of November, 1893, an Order in Council was passed extending the time for the completion of the main line to the River Saskatchewan to the 21st of December, 1896.

By the special Act 57-58 Vic., ch. 94 (1894), the name of the company was changed, as above, and an extension of time to the 31st of December, 1896, was granted for the completion of the main line to the River Saskatchewan.

By the special Act 58-59 Vic., ch. 8, the transport subsidy Act, 54-55 Vic., ch. 81 was amended to such effect as to enable one-half of the annual subsidy to be paid on completion of one-half of the railway between Winnipeg and the River Saskatchewan, and the balance on completion of the remainder; amendment of the transport contract of the 18th of September, 1891, accordingly, being authorized. Failing this action, the Governor in Council was authorized to transfer the said one-half of the subsidy to some other company.

### Wood Mountain and Qu'Appelle Railway Company.

(See No. 8, Land subsidies.)

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

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

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

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

By the special Act, 52 Vic., ch. 66 (1889), the section of a previous Act giving this company power to construct a railway on the route above indicated was repealed, and they were empowered to construct a line from a point on the International Boundary line, at or near Range 16, west of the 2nd Principal Meridian, in a northerly direction by Qu'Appelle station to Fort Qu'Appelle, thence in a north-easterly

direction to a point at or near the North-west corner of Lake Winnipegosis; the portion between the point of intersection with the Canadian Pacific Railway and Fort Qu'Appelle to be completed by the 1st August, 1890, and the whole road by the 16th of April, 1896.

By the Land Subsidy Act of 1889, 52 Vic., ch. 4, the subsidy provided by the Act 49 Vic., ch. 11, was made available for this new line.

By the Act 53 Vic., ch. 83 (1890), the statutory time for the construction of the portion of this railway between the Canadian Pacific Railway at Fort Qu'Appelle was extended to the 1st of August, 1892—the balance of the road to be completed at the rate of 50 miles a year thereafter.

This Act was repealed by the Act 55-56 Vic., ch. 63 (1892), and the time for the completion of the railway between the point of intersection with the Canadian Pacific Railway and Fort Qu'Appelle was extended to the 30th of October, 1894, the railway to be completed at the rate of 20 miles each year thereafter.

Powers were given to convey or lease the road to the Canadian Pacific Railway Company, the Manitoba and North-western Railway Company, the Great North-west Central Railway Company, or the Winnipeg and the Hudson Bay Railway Company.

By the special Act of 1894, 57-58 Vic., ch. 96, the time for completion of the section of railway between the Canadian Pacific Railway and Fort Qu'Appelle was extended to the 30th of October, 1896. The remainder of the road to be completed at the rate of 20 miles a year thereafter.

#### THE RAILWAY COMMITTEE OF THE PRIVY COUNCIL.

The Minister of Railways and Canals, being Chairman of the Railway Committee of the Privy Council, on which certain extensive duties are imposed by the Railway Act, 1888, and its amendments, it seems proper that a brief record should here be made of the matters submitted to the Committee during the calendar year from January to December, 1895, and the decisions arrived at. They are as follows:—

Extension of Cedar Avenue, Point Claire, across Grand Trunk and Canadian Pacific Railways.—Under consideration.

Petition of certain ratepayers of the town of St. Johns, P. Q., against the granting of an application from the Atlantic and North-west Railway Company for approval of the construction of a siding from their main line to the Chambly Canal.—Petition withdrawn—Case dismissed.

Complaint of village of Eganville with reference to the Atlantic and North-west Railway track along John Street in that village and request that street be graded up to the same level.—Application withdrawn—Case dismissed.

Toronto, Hamilton and Buffalo Railway under-crossing of Grand Trunk Railway near Cainsville. Approved.

Cobourg, Northumberland and Pacific Railway crossing of the Grand Trunk Railway at Cobourg.—Approved.

## Department of Railways and Canals.

Town of Berlin application for certain improvements to highway bridge crossing Grand Trunk Railway on Margaret Avenue.—Not granted.

Town of Berlin, application for Tuerk Street to be opened up across the Grand Trunk Railway.—Not granted.

Town of Berlin, application *re* certain changes at bridge crossing the Galt Branch of the Grand Trunk Railway over Tuerk Street.—Changes approved.

Occupation by Tillson Spur Line Railway of certain streets in the town of Tilsonburg.—Approved.

Junction of Tillson Spur Line with Grand Trunk and Canadian Pacific Railways in the town of Tilsonburg.—Approved.

Application from the County and Township of York for a case to be stated for the Supreme Court *re* apportionment of the cost of certain protection ordered at the Dufferin and Bathurst Street crossings of the Canadian Pacific Railway in the city of Toronto.—Not granted.

Application of the Toronto Trades and Labour Council for an Order to issue, under 57-58 Vic., cap. 55, directing protection to be provided for motor-men and others on electric and other railways.—Applicants did not appear—Case dismissed.

Occupation by the Cobourg, Northumberland and Pacific Railway of certain streets in the town of Cobourg.—Approved.

Extension of Stanley Street in the town of Richmond across the Grand Trunk Railway.—Under consideration.

Complaint of Messrs. Chapman & Co., Grain and Commission Merchants, Toronto, of alleged overcharge on wheat shipped by the Canadian Pacific Railway from the North-west.—Dismissed—The Committee not having jurisdiction.

Cobourg, Northumberland and Pacific Railway crossing of spur line of Grand Trunk Railway at Campbellford.—Not approved—Other arrangements ordered.

Cobourg, Northumberland and Pacific Railway under crossing of the Grand Trunk Railway at Campbellford.—Approved.

Occupation by the Cobourg, Northumberland and Pacific Railway of certain streets in the town of Campbellford.—Approved.

Toronto, Hamilton and Buffalo Railway overhead crossing of Aberdeen Avenue and Hamilton and Dundas Street Railway in the city of Hamilton.—Approved.—Subject to an agreement between parties being furnished.

Toronto, Hamilton and Buffalo Railway under-crossing of London and Hamilton public road near Brantford.—Approved.

Toronto, Hamilton and Buffalo Railway crossing of Hamilton and Dundas public road by an overhead bridge.—Approved.

Kingston, Napanee and Western Railway crossing of the Kingston and Pembroke Railway at Harrowsmith.—Approved.

Galt, Preston and Hespeler Railway crossing of the Grand Trunk Railway at Hespeler.—Approved.

Township of Wainfleet, application for an Order directing the Grand Trunk Railway Company to enlarge a culvert carrying drain under their track.—Granted. Terms under consideration.

Petition from the Central Ontario Railway to be released from maintaining night watchman at crossing by their railway of the Grand Trunk Railway at Trenton, and at a point in the Township of Rawdon.—Not granted.

Application of the city of Toronto for an Order to issue authorizing the widening of the Queen Street Subway passing under the tracks of the Grand Trunk and Canadian Pacific Railways in that city.—Case pending.

Grand Trunk Railway siding in the village of Dunnville.—Sanctioned.

Atlantic and North-west Railway crossings of certain streets in the town of St. Johns, P.Q.—Approved.

Application of the Canadian Pacific Railway Company and the city of Toronto for approval of plans, &c., of an overhead highway bridge along east side of York Street in the city of Toronto.—Plans, &c., approved generally—Detailed plans to be submitted for approval of the Government Chief Engineer.

Extension of Ellis Street and Eastwood Avenue, in the town of Niagara Falls, across the Canada Southern Railway.—Eastwood Avenue crossing approved—Ellis Street crossing not approved.

Canada Southern Railway Branch from a point near the Welland Station to the works of the Ontario Peat Fuel Co.—Sanctioned.

Junction of Canada Southern Railway Branch to works of Ontario Peat Fuel Co., with their main line.—Approved.

Crossing by Canada Southern Railway Branch to works of Ontario Peat Fuel Co., of the Forks Road, or road allowance, between Concessions 4, lot 8, and 5, lot 9.—Approved.

Plan and proposed site of bridge to carry the Canada Southern Railway Branch to works of Ontario Peat Fuel Co., across the Welland Canal Feeder.—Approved.

Canada Southern Railway Branch from Ruscombe's Siding to Smith's Mill, Township of Rochester, County of Essex.—Approved.

Plan and site of Canada Atlantic Railway Bridge across the Richelieu River, at Lacolle.—Approved.

Great Northern Railway crossing of Piles Branch of the Canadian Pacific Railway.—Approved.

Plan and site of Great Northern Railway Bridge across the Ottawa River and Grenville Canal, near Hawkesbury, Ont.—Approved.

Massawippi Valley Railway Branch, from a point on the Stanstead and Derby Branch of that railway to the village of Stanstead Plain.—Sanctioned.

Toronto, Hamilton and Buffalo Railway, overhead crossings of Garth, Poulette, Locke, Pearl and Bay Streets, in the city of Hamilton.—Approved.

Toronto, Hamilton and Buffalo Railway crossings of certain public roads in the Townships of Brantford and Ancaster.—Approved.

## Department of Railways and Canals

Toronto, Hamilton and Buffalo Railway, occupation of part of Hunter Street, in the city of Hamilton, including the construction of a tunnel along said street.—Approved.

Toronto, Hamilton and Buffalo Railway, overhead crossing of Hamilton and Dundas Street Railway on road allowance between 3rd and 4th Concessions, Township of Barton, Ont.—Approved.

Cobourg, Northumberland and Pacific crossing of the Central Ontario Railway in the Township of Rawdon, Ont.—Approved.

Oshawa Railway crossing of the Grand Trunk Railway, in the Township of East Whitby, Ont.—Approved.

Toronto, Hamilton and Buffalo Railway crossing of Hamilton and Dundas Street Railway, corner McNab and Hunter Streets, Hamilton.—Approved.

Toronto, Hamilton and Buffalo Railway Crossing of Grand Trunk Railway, east of Victoria Avenue, South Hamilton.—Approved.

Toronto, Hamilton and Buffalo Railway under-crossing of Hamilton Street Railway, on Locke Street, Hamilton.—Approved.

Toronto, Hamilton and Buffalo Railway crossing of Hamilton Street Railway, on James Street, in the City of Hamilton.—Approved.

Plan and site of Toronto, Hamilton and Buffalo Railway Bridge across the Chippawa River at Welland.—Approved.

Montreal Street Railway crossing of the Canadian Pacific Railway, on St. Denis Street, Montreal.—Approved.

Montreal Street Railway crossings of the Grand Trunk Railway, on Notre Dame Street, Montreal.—Approved.

Grand Trunk Railway Branch, St. David's Station to Queenston Quarries.—Sanctioned partly on a different location from that previously sanctioned.

Extension of Grand Trunk Railway siding on Esplanade, between Sherbourne and George Streets, in the city of Toronto.—Approved.

Berlin and Waterloo Street Railway crossings of the Grand Trunk Railway, at certain points in the towns of Berlin and Waterloo.—Approved.

Plan and site of Great Northern Railway Bridge across the St. Maurice River.—Approved.

Tilsonburg, Lake Erie and Pacific Railway crossing of Grand Trunk Railway at Tilsonburg.—Approved.

Tilsonburg, Lake Erie and Pacific Railway Junction with Grand Trunk Railway at Tilsonburg.—Approved.

Great Northern Railway Junction with Canadian Pacific Railway Piles Branch.—Approved.

Toronto, Hamilton and Buffalo Railway occupation of Hunter Street in the city of Hamilton from Queen to James Streets.—Approved.

Toronto, Hamilton and Buffalo Railway crossings of streets in the city of Hamilton, between McNab and Sherman, inclusive.—Approved with the exception of Hughson Street.

Toronto, Hamilton and Buffalo Railway crossing of Stoney Creek mountain road east of Village of Stoney Creek.—Over-crossing of road approved.

Montreal Street Railway temporary crossing of the Canadian Pacific Railway on St. Denis Street, Montreal.—Authorized.

Presentment of Grand Jury with reference to alleged dangerous condition of approaches to the Fenelon Road crossing of the Grand Trunk Railway near the town of Lindsay.—Partly heard.

Occupation by the Oshawa Railway of certain Streets in the town of Oshawa.—Approved.

Application from the Grand Trunk Railway Company and city of Toronto with reference to details of plans of York Street Bridge in the city of Toronto. Referred to Government Chief Engineer for report.—Inquiry postponed, at request.

Change of location of South Shore Railway Bridge across the Richelieu River, at Sorel—Approved.

Toronto, Hamilton and Buffalo Railway occupation of lands of the Hamilton, Grimsby and Beamsville Electric Railway across lots 3, 4 5, and 6, 3rd Concession, Township of Barton—with power to construct their line thereon, and to remove track of the Hamilton, Grimsby and Beamsville Railway.—Approved as per agreement between the parties, the terms thereof not being prejudicial to the public interests.

Toronto, Hamilton and Buffalo Railway Junction with Canada Southern Railway at Welland.—Approved.

Toronto, Hamilton and Buffalo Railway occupation of lands of the Hamilton Grimsby and Beamsville Electric Railway Company part lot 4, 3rd Concession, Township of Barton.—Approved as per agreement between the parties, the terms thereof not being prejudicial to the public interests.

Toronto, Hamilton and Buffalo Railway occupation of lands of the Grand Trunk Railway Company, part lot 12- 3rd Concession, Township of Barton.—Approved as per agreement between the parties.

Toronto, Hamilton and Buffalo Railway crossings of public highways in Townships of Thorold, Pelham, Gainsboro, N. and S. Grimsby, Saltfleet and Barton.—Approved, with certain exceptions.

Township of Saltfleet complaint of inadequacy of drain under track of Toronto, Hamilton and Buffalo Railway in that township.—Government Chief Engineer to report, and Order to be made accordingly.

Renewed complaint of Mr. Emile Dubé with respect to rates charged on the Temiscouata Railway.—Hearing adjourned.

Branch line of Nakusp and Slocan Railway from Three Forks to Sandon.—Sanctioned.

Ottawa Electric Railway over-crossing of the Ottawa, Arnprior and Parry Sound Railway, on lot 36, 1st Concession, Township of Nepean.—Approved.



## Department of Railways and Canals.

### RAILWAY AND CANAL LEGISLATION OF THE SESSION OF PARLIAMENT.

58-59 VICTORIA, (1895).

CHAP.

*Assented to 28th June and 22nd July, 1895.*

45. An Act respecting the Alberta Railway and Coal Company.
46. An Act respecting the Canada Southern Railway Company.
47. An Act to incorporate the Dominion Atlantic Railway Company.
48. An Act respecting the Great North West Central Railway Company.
49. An Act to incorporate the International Radial Railway Company.
50. An Act to incorporate the James Bay Railway Company.
51. An Act respecting the Kingston and Pembroke Railway Company.
52. An Act to revive and amend the Act respecting the Lake Manitoba Railway and Canal Company.
53. An Act to incorporate the Langenburg and Southern Railway Company.
54. An Act to incorporate the Lindsay, Haliburton and Mattawa Railway Company.
55. An Act respecting the Manitoba and South-Eastern Railway Company.
56. An Act respecting the Oshawa Railway Company.
57. An Act respecting the Ottawa, Arnprior and Parry Sound Railway Company.
58. An Act to incorporate the Ottawa and Aylmer Railway and Bridge Company.
59. An Act respecting the Quebec, Montmorency and Charlevoix Railway Company.
60. An Act respecting the Red Mountain Railway Company.
61. An Act respecting the St. Catharines and Niagara Central Railway Company, and to change the name of the Company to the Niagara, Hamilton and Pacific Railway Company.
62. An Act respecting the St. Lawrence and Adirondack Railway Company.
63. An Act respecting the Shore Line Railway Company.
64. An Act respecting the South Shore Railway Company.
65. An Act respecting the Temiscouata Railway Company.
66. An Act respecting the Toronto, Hamilton and Buffalo Railway Company.
67. An Act to incorporate the Trail Creek and Columbia Railway Company.
68. An Act to incorporate the Trans-Canadian Railway Company.
69. An Act respecting the Windsor and Annapolis Railway Company.
70. An Act respecting the Buffalo and Fort Erie Bridge Company.
71. An Act to amend the Act incorporating the Canada and Michigan Tunnel Company, and to change the name of the Company to the Canada and Michigan Bridge and Tunnel Company.
72. An Act respecting the Clifton Suspension Bridge Company.
73. An Act to incorporate the Deschênes Bridge Company.
74. An Act to incorporate the St. John River Bridge Company.
75. An Act to amend the Act to incorporate the St. Clair and Erie Ship Canal Company.

## 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.
2. The Welland Canal.
3. The Sault Ste. Marie Canal.
4. The Richelieu navigation, from the St. Lawrence to Lake Champlain.
5. The River Ottawa.
6. The Rideau navigation, from Ottawa to Kingston.
7. The Trent navigation.
8. St. Peter's Canal, Cape Breton.

## TOTAL EXPENDITURE ON CANAL WORKS AND MAINTENANCE.

The following list shows the total amount charged to capital account, expended by the Government for construction and enlargement of each of the canals of the Dominion; embracing the period prior to Confederation and extending down to the 30th of June, 1895:—

Lachine Canal.....	\$9,940,974 01
Beauharnois Canal.....	1,611,690 26
Soulanges Canal (under construction).....	1,739,969 48
Williamsburg Canals (being enlarged).....	3,786,298 59
Cornwall Canal (being enlarged).....	5,505,254 22
St. Lawrence River and Canals, surveys, &c.....	1,139,675 77
Lake St. Louis .....	4,753 14
Murray Canal.....	1,247,470 26
Welland Canal.....	23,767,675 74
Sault Ste. Marie Canal .....	3,258,025 24
Ste. Anne Canal.....	1,170,215 63
Carillon and Grenville Canals.....	4,025,938 55
Culbute Canal.....	379,494 46
Rideau Canal (including the Perth branch, or Tay Canal).....	4,560,285 60
Trent Canal .....	1,145,803 89
St. Ours Lock.....	121,537 65
Chambly Canal.....	637,206 76
St. Peter's Canal.....	647,300 43
Baie Verte Canal survey.....	44,387 53
Total .....	\$64,689,569 68

Details as to the above will be found in Appendix No. 2, p. 2, *et seq.*

## Department of Railways and Canals

### TOTAL EXPENDITURE AND RECEIPTS FOR THE YEAR.

The total expenditure on the several canals for the fiscal year ended on the 30th of June, 1895, was as follows:—

Construction (charged to Capital) .....	\$2,452,273 65
Renewals, (charged to Income).....	\$239,494 73
Ordinary repairs (charged to Revenue). 172,600 21	
Staff (operating and collecting) do 333,680 10	
	745,775 04
	\$3,198,048 69

The total revenue for the fiscal year was \$340,861.58, less refunds \$971.09, leaving the actual revenue \$339,890.49; compared with a total revenue for 1893-94 of \$387,421.37, less refunds \$1,882.20, leaving the actual revenue \$385,539.17. The decrease amounted to \$45,648.68. The system of granting refunds on through shipments of grain and other food products was discontinued at the beginning of 1893, the through rate being fixed at ten cents a ton by an Order in Council of the 13th of February, 1893. The refunds above referred to are detailed in App. 2, p. 19, and were for over payments, and for material carried for government works.

The falling off in revenue is mainly in the tolls on the Welland Canal, a decrease of \$35,688.79, and on the St. Lawrence Canals a decrease of \$8,722.92.

The total expenditure on staff and maintenance, repairs and renewals, amounted for the year to \$745,775.04; \* the total net receipts, including \$282,107.17 from tolls, amounted to \$339,890.49; the amount of expenditure in excess of receipts being \$405,884.55.

The following statement shows the amount collected on each canal for Canal Revenue proper, and hydraulic rents, etc., during the Fiscal Year ended on the 30th of June, 1895.

Details will be found in Appendix No. 2, p. 17.

Name of Canal.	Tolls.	Wharfage and Storage.	Fines.	Other Receipts.	Hydraulic and other Rents.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Welland.....	154,752 41		115 00	14 00	6,968 87	161,850 28
St. Lawrence.....	62,465 35	2,437 93	125 00	14,957 66	32,621 03	112,606 97
Chambly.....	21,496 61		5 00		100 00	21,601 61
Ottawa.....	33,828 19		12 00	8 65	36 00	33,884 84
Rideau.....	5,833 70	69 02		310 00	829 00	7,041 72
St. Peters.....	2,072 42					2,072 42
Murray.....	699 95					699 95
Trent Valley.....	958 54			93 25	52 00	1,103 79
<b>Total.....</b>	<b>282,107 17</b>	<b>2,506 95</b>	<b>257 00</b>	<b>15,383 56</b>	<b>40,606 90</b>	<b>340,861 58</b>
<b>Refunds .....</b>						<b>971 09</b>
						<b>339,890 49</b>

\* The statement of the Accountant p. 17, giving a total of \$506,280.31, does not include the sum of \$239,494.73 for renewals charged to "Income."

Details relating to the canals revenue and various commercial statistics for the season of navigation of the year 1894, will be found in the appendix, "Canal Statistics," No. 15, p. 249.

The following features of the principal canal traffic during the season of navigation of 1894, will be found of interest:—

On the Welland Canal, 1,008,221 tons of freight were moved, of which 594,765 tons were agricultural products, and 145,929 tons produce of the forest, 758,783 tons passing eastwards and 249,438 tons westwards, 989,534 tons were through freight, of which 745,942 tons passed east through the whole length of the canal. Canadian vessels carried 263,526 tons of through freight and United States vessels 726,008 tons. The total freight passed eastwards and westwards through this canal from United States ports to United States ports was 592,267 tons, a decrease of 39,400 tons compared with the year 1893. The quantity of grain passed down this canal and the St. Lawrence Canals to Montreal was 273,651 tons, a decrease of 228,155 tons compared with the previous year; of this 23,030 tons were transhipped to Ogdensburg, as against 501,806 tons carried down in 1893, of which 71,445 tons were transhipped at Ogdensburg.

It has, however, to be noted that the year 1893 was a most exceptional year for grain traffic, and that the quantity carried in 1894 exceeds that carried in 1892.

On the St. Lawrence Canals a total of 886,778 tons of freight were moved, of which 494,778 tons were east bound through freight, and 43,204 tons west bound through freight. 355,148 tons were agricultural products and 348,025 tons were merchandise.

Two small cargoes were taken down to Montreal direct.

On the River Ottawa Canals the total quantity of freight moved was 562,010 tons, of which 543,747 tons were produce of the forest.

On the Chambly Canal 277,608 tons were moved, of which 151,732 tons were produce of the forest.

On the Rideau Canal 94,479 tons were carried, of which 64,633 tons were produce of the forest.

On St. Peter's Canal 55,460 tons were carried, of which 6,269 tons were produce of the forest.

On the Murray Canal 21,888 tons were passed, of which 8,360 tons were produce of the forest.

On the Trent Valley Canal 36,271 tons were moved, of which 36,076 tons were the produce of the forest.

During the season a steamer from Christiansand, Norway, passed up through, the St. Lawrence and Welland Canals with a cargo of 509 tons of fish for Chicago returning with a cargo of flour and wheat.

## Department of Railways and Canals.

### RIVER ST. LAWRENCE AND LAKES.

The River St. Lawrence, with the system of canals established on its course above Montreal, and the Lakes Ontario, Erie, St. Clair, Huron and Superior, with connecting canals, afford a course of water communication extending from the Straits of Belle Isle to Port Arthur, at the head of Lake Superior, a distance of 2,260 statute miles. The distance to Duluth is 2,384 miles.

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

Prior to the commencement of the work of deepening the new channel, the size of vessels which could reach Montreal was limited to about 350 tons, and in the year 1853, the port was visited by only three small transatlantic steamers.

During the season of 1894, out of 5,400 vessels arriving, 734 were sea-going vessels, having an aggregate tonnage of 1,077,876 tons, some of them being vessels of over 5,000 tons. The impetus to commerce thus given has resulted in the undertaking of very extensive works of harbour improvement at Montreal by which the present accomodation will be greatly increased. Navigation, which is closed by ice during the winter months, opens about the end of April.

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

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

The Dominion canals, constructed between Montreal and Lake Superior, are the Lachine, Beauharnois, Cornwall, Farran's Point, Rapide Plat, Galops, Welland and Sault Ste. Marie. Their aggregate length is 71 miles; total lockage (or height directly overcome by locks) 551 feet. The number of locks through which a vessel would pass in its passage from Montreal, at the head of ocean navigation, to the head of Lake Superior is 54.

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

The American Canal is a little over a mile in length, with a bottom width of 100 feet, and has one lock, of which the dimensions are:—length 515 feet, width 80 feet, gate openings 60 feet wide, with 16 feet of water on the sills, and a lift of about 18 feet. By it there is afforded a 16 feet navigation between the two lakes.\*

\*The enormous extent of the ever increasing traffic on the great lakes is so little realized by the general public that it has been thought well as in previous years to prepare and print as a note to this report a summary of the various official statements, showing the traffic operations at this point, and also the general features of the work of new lock construction now in progress on the American side of the river.

The usual source of official information has hitherto been the annual report of the Chief of Engineers of the United States army, but the last available is that for the year 1892-93, and the season of navigation of 1893, a summary of which was given last year.

There being now, however, a regular system of interchange of traffic information between the officers of the two canals, it has become possible to give traffic statements up to the very latest date, the close of the *Season of Navigation of 1895*. The first statement gives the total traffic at this point, and the second the traffic through the Canadian Canal.

COMPARATIVE STATEMENT of Freight and Passenger Traffic to and from Lake Superior for the season of 1895.

Items.	Designation.	Season.		Increase	Per cent.	Decrease.	Per cent.
		1894.	1895.				
Vessels ("A").....	Number	14,491	17,956	3,465	24		
Lockages.....	do	6,431	7,734	1,303	20		
Tonnage, registered	Net tons	13,110,366	16,696,781	3,696,415	28		
Tonnage, freight.....	do	13,195,860	15,062,580	1,866,720	14		
Passengers.....	Number	27,236	31,656	4,420	16		
Coal, hard.....	Net tons	532,870	440,477			92,393	17
Coal, soft.....	do	2,264,314	2,133,885			130,499	06
Flour.....	Barrels	8,965,773	8,902,302			63,471	01
Wheat.....	Bushels	34,869,483	46,218,250	11,348,767	33		
Grain (other than wheat) ("C").....	do	1,545,008	8,328,694	6,783,686			
Manuf'ced & Pig Iron	Net tons	60,659	100,337	39,678	65		
Salt.....	Barrels	237,461	269,919	32,458	14		
Copper.....	Net tons	99,573	107,452	7,879	08		
Iron Ore.....	do	6,548,876	8,062,209	1,513,333	23		
Lumber.....	M. ft. B. M.	722,788	740,700	17,912	02		
Silver Ore.....	Net tons	412	100			312	14
Building Stone.....	do	21,417	23,876	2,459	11		
Unclassified, freight ("B").....	do	431,185	463,308	12,123	03		

—Note.

"A" Steamers..... 12,495  
Sails..... 4,790  
Unregistered..... 671

Total..... 17,956

"B" Included in the item of "Unclassified Freight" is 2,250 tons of Wool and 397 tons of Hides.

Canal was open to navigation during the season of 1894, 234 days.

Canal was open to navigation during the season of 1895, 231 days.

"C" The item of "Grain (other than wheat)" in this season's report includes such East bound grain as was heretofore reported in the item of "Unclassified Freight"; therefore no percentage is given.

"D" The above comparison includes the traffic through the Canadian Canal which was opened to commerce on September 9th and closed on December 6, 1895, completing a season of 87 days.

## Department of Railways and Canals

The following indicates the main features of the works executed, in progress, and in contemplation in connection with the scheme of canal enlargement on the through line of navigation between tide water and Lake Superior.

The general enlargement scheme comprises locks of the following dimensions:—Length, 270 feet between the gates; width, 45 feet; with a navigable depth of 14 feet of water over the sills. The Sault Ste. Marie lock, however, is 900 feet long, 60 feet wide, and with a depth of water more than equivalent to 21 feet in the new American lock.

*Lachine Canal.*—On the Lachine Canal the foundations of the permanent structures were put down to the full depth for vessels drawing 14 feet, but for about  $6\frac{1}{2}$  miles the canal itself has yet to be lowered 2 feet to obtain this depth. The work is in progress.

STATEMENT of Traffic through the Sault Ste. Marie (Canadian) Canal for Navigation, 1895, being from date of opening, September 9th, to the date of closing, December 6th, 1895.

### EAST BOUND.

Copper ore, net tons.....	305
Iron, do.....	214,290
Iron, all other, net tons.....	1,102
Stone, lime, &c., net tons.....	3,116
Wheat, bushels.....	4,518,075
Other grain, bushels.....	707,340
Flour, barrels.....	165,366
Lumber sawn, feet, b.m.....	11,762,144
Unclassified freight, net tons.....	5,574
Passengers, No.....	1,130

### WEST BOUND.

Coal, bituminous, net tons.....	122,763
Coal, anthracite, do.....	24,910
Iron, manufactured, net tons.....	1,074
Salt, barrels.....	7,994
Coal oil, barrels.....	35,320
Unclassified freight, net tons.....	21,686
Passengers, No.....	1,196
East bound freight, net tons.....	415,432
West do do.....	180,405

Total freight in tons..... 595,837

Total passengers.....	2,326
do registered tonnage.....	749,626
do vessels passed.....	1,191

The new American lock in progress occupies the site of the two old locks built in 1855, the intention being to afford a navigable depth of 20 feet, the present canal to be deepened to correspond with that depth. The dimensions of the new lock will be:—length, 800 feet between gates, width, 100 feet throughout, depth, 21 feet on the mitre sills, and a single lift corresponding to 18 feet. The estimated cost of the work, including the deepening of the canal, is set down at \$4,738,865. Up to the 30th June, 1893, there had been expended a total of \$1,442,567.80. The amount set down as to be expended profitably in the fiscal year, ending on the 30th of June, 1895, was \$300,000. No further information is available.

There has been undertaken, and is in progress, the work of improving the southern channel of the river below the falls, known as the Hay Lake channel, in American waters, the practical limit of which was formerly to vessels drawing not more than 6 feet. It is proposed to make a channel 300 feet wide, and of a navigable depth of 20 feet. The improved route will leave the present navigable channel of the river at a point, Sugar Island rapids, about  $2\frac{3}{4}$  miles below the canal; will pass through these into Hay Lake; then by way of Middle Neebish; rejoining the present navigable channel at the foot of Sugar Island; saving a distance of 11 miles (16 miles in place of 27), and giving a route which can be so marked by lights as to be navigable at night, an advantage which is not to be afforded by the present channel, except by the use of many lights. The estimated cost of the work is set down in the report of the United States engineers, quoted, at \$2,659,115. The expenditure during the fiscal year ended the 30th of June, 1893, was \$345,357.34, making a total expenditure of \$1,455,163.43. It was stated that for the fiscal year ending on the 30th of June, 1895, the sum of \$150,000 could be profitably expended. No more recent information is available.

*Lake St. Louis.*—For about four miles above the head of the Lachine Canal Lake St. Louis is obstructed by numerous shoals, consisting principally of hard material, the removal of which is necessary to form a channel suitable to the enlarged 14 feet navigation. The work of excavating a channel 300 feet wide and 16 feet deep for a distance of about 4 miles is in progress.

*Soulanges Canal.*—Between Lakes St. Louis and St. Francis there is a rise of about 83 feet in the river, which is at present surmounted by the Beauharnois Canal, on the south shore of the St. Lawrence. The enlarged scale canal (the Soulanges), on the north shore of the river, will be about 14 miles in length. It is in course of construction.

*Lake St. Francis.*—In Lake St. Francis the obstructions to a 14 feet navigation are of minor importance, and are found chiefly near its upper or western end, where there are some shoals to be removed.

*Cornwall Canal.*—The works are nearly completed.

*Farran's Point Canal.*—Nothing has been done towards the enlargement of the canal at Farran's Point beyond the necessary surveys and the preparation of plans.

*Rapide Plat Canal.*—At the Rapide Plat the works of enlargement remaining to be done are nearing completion.

Between the Cornwall Canal and the Galops Canal the river reaches require to be deepened or improved at certain points.

*Galops Canal.*—The Galops Canal,  $7\frac{3}{4}$  miles in length, passes the Iroquois, the Cardinal and Galops Rapids. Of these, the Iroquois and the Cardinal are very strong currents rather than rapids.

This canal is being enlarged for a distance of about 4,000 feet from the upper entrance to a point below the Galops Rapids, where a new lift-lock and other works, now completed, give access from the river. These enlargement works are nearly completed.

From the upper entrance of this canal to the Prescott reach, a distance of about three miles, the present circuitous and, in parts, shallow channel lies across what is known as "Flat Rock" shoal, and runs through American waters. The improvement and utilization of the north or Canadian channel of the river has been suggested as a part of the general scheme of enlargement, but beyond survey and the preparation of plans nothing has yet been done.

*Welland Canal.*—The enlargement of this canal is completed.

*Sault Ste. Marie Canal.*—This canal is now open for traffic. The approaches are dredged out for a depth of 17 feet of water at extreme low water, in place of a 20 feet navigation to which the lock and canal are adapted.



# Department of Railways and Canals.

## LACHINE CANAL.

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

The depth of the canal between locks is at present only adapted to vessels of 12 feet draught.

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

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

The scheme for the enlargement of this, in common with the other canals of the St. Lawrence, contemplated the affording of 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, side walls and culverts, have been built to afford a navigable depth of 14 feet. The works for the further deepening of the canal for the 14 feet navigation are in progress.

The canal was closed on the 30th of November, 1894, and opened on the 30th of April, 1895.

The navigation of the canal was carried on through the season without interruption.

The report of the Superintending Engineer gives details of the repairs and new works executed, and shows generally the condition of the canal. (Appendices pp. 51, 58 and 133).

The expenditure on this canal during the past fiscal year was as follows :—

Construction, chargeable to capital.....	\$189,944 36
Renewals, chargeable to income .....	25,842 00
Repairs .....	25,891 45
Staff.....	56,337 44
<b>Total .....</b>	<b>\$272,173 25</b>

## 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 at 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 on the 30th of December, 1894, and was reopened for traffic on the 1st of May, 1895.

During the season navigation was uninterrupted.

Details of repairs, &c., will be found in the Appendices, pp. 56 and 136.

The expenditure on this canal for the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ Nil.
Renewals, chargeable to income.....	27,982 93
Repairs.....	12,299 49
Staff.....	20,428 59
Total.....	<u>\$ 60,711 01</u>

## CORNWALL CANAL.

Length of canal.. ....	11½ statute miles.
Number of locks... ..	6
Dimensions of locks.....	270 by 45 feet.
Total rise or lockage .....	48 feet.
Depth of water on sills .....	14 “
Present breadth of canal at bottom (except at three 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 stretch through Lake St. Francis of 32¾ miles, which is navigable for vessels of the size at present in use.

The Cornwall Canal extends past the Long Sault Rapids.

This canal was closed on the 8th of December, 1894, and reopened on the 29th of April, 1895.

A delay of 4 days was caused during the season by the breaking of the gates of one of the locks by a passing steamer.

Details of repairs and operation will be found in the Appendices, pp. 53, 59, and 155.

\* NOTE.—Though the bottom breadth is, as stated, 100 feet, it must be observed that this is the bottom breadth of the old, or 9 feet navigation canal.

# Department of Railways and Canals.

## NEW WORKS.

The two locks at the new lower entrance (taking the place of three on the old line) were completed in 1882, and the remaining three are now completed.

The work of deepening and enlarging the prism of the canal is approaching completion.

It having been decided to adopt the north channel of the River St. Lawrence between Sheik's Island and the mainland as a part of the canal, the enlargement of the existing canal at this point was abandoned. The work of constructing the necessary dams across the channel was placed under contract on the 19th of June, 1893, and is now practically completed.

The estimated cost of the enlargement of this canal is \$4,000,000, of which there had been paid, up to the 1st of October, 1895, \$3,522,571.

The work of the year is described in detail in the appendices to the present report. (See page 159.)

The expenditure on this canal for the past fiscal year was as follows:—

Construction, chargeable to capital .....	\$450,689 65
Renewals, chargeable to income.....	21,497 74
Repairs.....	13,053 55
Staff and maintenance.....	15,414 56
Total .....	<u>\$500,655 31</u>

## WILLIAMSBURG CANALS.

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

The canals were closed on the 10th of December, 1894, and reopened on the 23rd of April, 1895.

No accidents occurred, and navigation is stated to have been maintained in a satisfactory manner.

The expenditure on these canals during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$347,357 23
Renewals, chargeable to income.....	13,720 36
Repairs .....	7,371 37
Staff and maintenance.....	9,675 09
Total.....	<u>\$378,124 05</u>

For details of work see the Appendices, pages 53, 54, 156 and 162.

## FARRAN'S POINT CANAL.

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

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

The enlargement of this canal has not been commenced, but surveys have been made and plans prepared. (See Appendices, pages 53 and 162.)

## RAPIDE PLAT CANAL.

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

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

## NEW WORKS.

The enlargement works of the Rapide Plat Canal consist of the enlargement of the channel way above, and for some distance below, the present guard-lock at the head of the canal, and the construction of a new guard-lock and a supply weir in connection with the old lock. The bottom of the channel, for a distance of about 1,000 feet below, and out into deep water, above the lock, about 700 feet, has been excavated to an extent sufficient to afford a navigable depth of 14 feet. The new lock was completed in 1888, and is in operation; the other works in that connection are also finished. Contracts for the enlargement of the remaining portion of the canal, including the lock at the lower outlet, were entered into in the month of January, 1891. The works are in progress. The estimated cost of enlargement is \$1,600,000, of which, up to the 1st of October, 1895, there has been paid, \$1,298,789. (See Appendices, pages 53, 156 and 162.)

# Department of Railways and Canals.

## GALOPS CANAL.

Length of canal.....	7 $\frac{5}{8}$ miles.
Number of locks.....	3
Dimensions of locks.....	200 feet by 45 feet.
Total rise, or lockage..	15 $\frac{1}{2}$ feet.
Depth of water on sills.....	9 “
Breadth of canal at bottom.....	50 “
•Breadth of canal at surface of water .....	90 “

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

### NEW WORKS.

The works for the widening and deepening of the upper entrance, and for the construction of a lift-lock from the river below the Galops Rapids, about 4,000 feet from the upper entrance, together with a guard-lock and supply weir to the canal adjacent to that point were placed under contract in November, 1888. Both locks are completed, and the water was admitted to them in October, 1894. The balance of the work is in progress. Out of the estimated cost of this enlargement, \$1,500,000, there had been paid up to the 1st of October, 1895, the sum of \$1,302,424.

It is proposed that, by the use of this new lift-lock, vessels qualified to stem the currents of the Iroquois and Cardinal Rapids should dispense with about 7 miles of canal passage, traversing only the 4,000 feet between the lock and the upper entrance in order to pass the Galops Rapids.

No steps have, therefore, been taken towards the enlargement of the 7 miles of the canal east of this lock, beyond the preliminary surveys.

In the river opposite the canal the formation of a new channel through certain shoals in the Galops Rapids was commenced in 1880, and was reported as completed in 1888. The channel so improved is about 3,300 feet in length and 200 feet wide. The intention of the department was to afford a safe passage at a low stage of the river water (9 feet on the mitre sills of the lock at the upper entrance of the old Galops Canal) for vessels drawing 14 feet. It was considered advisable to allow a clear margin of 3 feet below the keel of a vessel of this draught, the depth to be consequently, 17 feet. The work was believed by the superintending engineer to be completed in 1888, and was so reported by him.

On further examination, however, it was found that, at certain points, the depth is less than 17 feet, and under these circumstances, a very close examination and survey with a vessel specially fitted with appliances for testing the depth under the difficult conditions of the case has been made under the supervision of Mr. Kennedy, the Chief Engineer to the Montreal Harbour Commissioners, as an independent authority. Mr. Kennedy's report shows that there are obstructions in the channel by which the navigable depth of water, at certain places, is reduced considerably below that required for vessels of the draught contemplated.

The contractors have been settled with under a judgment of the Court of Exchequer in their favour.

Since the formation of the new channel it has been navigated by propellers and other vessels drawing over 9 feet of water, but in view of the results of Mr. Kennedy's examination it cannot be regarded, at present, as safe. The buoys by which the channel was indicated were not placed in position during the past season and it has not been used.

To fully carry out the design, some work will be necessary in order to obviate certain cross currents, the action of which requires to be ascertained by actual experience of the channel.

During the season of 1892, a location survey was completed of what is known as the "north channel," from the head of the Galops Canal to the head of Spencer's Island, a channel which, if improved, would afford a course shorter by  $\frac{2}{3}$  of a mile than the southern channel in American waters now in use. (See Appendices, pages 54, 153, 161 and 164.)

#### MURRAY CANAL.

Length between eastern and western pier heads.....	5 $\frac{1}{2}$ miles
Breadth at bottom.....	80 feet.
Depth below lowest known lake level .....	11 "

No locks.

This canal extends through the Isthmus of Murray, giving connection westward between the head waters of the Bay of Quinté and Lake Ontario, and thus enabling vessels to avoid the open lake navigation.

The works on this canal comprise a cut through the isthmus 4 $\frac{1}{2}$  miles long, and improvements in the way of dredging and other work to the entrance channels at either end, covering a total distance of 9 $\frac{1}{2}$  miles in all. There are no locks. The canal is crossed by four swing bridges.

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

The canal is 80 feet wide at the bottom, the depth being, at low water, 12 $\frac{1}{2}$  feet.

The entrance from the lake to Presqu'île Harbour has a width varying from 1,000 feet outside the main light to 200 feet at the entrance of the channel. The maximum depth at the entrance is 16 feet at low water.

The canal was closed on the 15th of December, 1894, and reopened on the 19th of April, 1895.

Navigation was maintained without interruption. The canal was used to the extent of 673 passages of vessels. (Appendices, pages 59 and 157.)

The expenditure on the canal, during the past fiscal year, was as follows:—

Construction, chargeable to capital.....	Nil.
Renewals, chargeable to income.....	Nil.
Repairs.....	5,063 49
Staff and maintenance.....	5,354 97

Total..... \$10,418 46

# Department of Railways and Canals.

## WELLAND CANAL.

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

	Old Line.	Enlarged or New Line.
Length of canal.....	27½ miles.	26¾ miles.
Pairs of guard-gates (formerly 3).....	26	2
Number of locks { lift.....	1	25
	guard.....	1
Dimensions.....	1 lock 200 x 45	} 270 feet x 45 feet.
	1 " 200 x 45	
	1 (tidal) 230 x 45	
	24 locks 150 x 45	
Total rise, or lockage.....	326¾ feet.	326¾ feet.
Depth of water on sills.....	10¼ feet.	14 "

### WELLAND RIVER BRANCHES.

Length of canal—Port Robinson Cut to River Welland.....	2,622 feet.
“ From the canal at Welland, to the river, via lock at aqueduct.....	300 “
“ Chippawa Cut to River Niagara.....	1,020 “
Number of locks—one at aqueduct and one at Port Robinson.....	2
Dimension of locks.....	150 by 26½ feet.
Total lockage from the canal at Welland down to River Welland.....	10 feet.
Depth of water on sills.....	9 “ 10 inches.

### GRAND RIVER FEEDER.

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

### PORT MAITLAND BRANCH.

Length of canal.....	1¾ miles.
Number of locks.....	1
Dimensions of locks.....	185 by 45 feet.
Total rise or lockage.....	7½ feet.
Depth of water on sills.....	11 “

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

From Port Dalhousie to Allanburgh,  $11\frac{3}{4}$  miles, there are two distinct lines of canal in operation, the old line and the enlarged or new line.

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

The canal was opened in 1883 for vessels drawing 12 feet of water, and in May, 1887, for vessels drawing 14 feet.

Navigation closed on the 11th of December, 1894, and reopened on the 20th of April, 1895.

On the 9th of May, 1895, a delay of  $4\frac{1}{2}$  days was caused by the carrying away of certain lock gates by a passing steamer.

The staff of the canal was considerably reduced at the opening of navigation in 1894 and placed on a sound working basis. The operating of this canal is reported by the chief engineer to have been satisfactorily conducted with the staff as so reduced.

Tables will be found on page 177 showing the highest and lowest depth of water of the new entrance locks at Port Dalhousie and at Port Colborne for each month throughout the past fiscal year.

Details as to repairs executed will be found in the appendices. (See Appendices, p. 60 and p. 166.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ 3,809 35
Renewals, chargeable to income.....	24,245 02
Repairs.....	48,270 94
Staff and maintenance.....	90,438 07
Total .....	<u>\$166,763 38</u>

From the head of the Welland Canal there is a deep water navigation through Lake Erie, the Detroit River, Lake St. Clair, the St. Clair River, Lake Huron and River St. Mary to within a short distance of the Sault Canal, a distance of about 394 miles. From the Sault the distance through Lake Superior to Port Arthur is 266 miles, and to Duluth 390 miles.

#### SAULT STE. MARIE CANAL.

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



## Department of Railways and Canals.

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

At ordinary stages of the river water there is a difference of 18 feet in the levels of the water above and below this island. The length of the canal across the island is 3,500 feet. In addition, approaches have been formed at both entrances. The total length of this canal together with its excavated channels of approach is about 18,100 feet.

For contract purposes, the work was divided into three sections, and contracts were entered into as follows:—For the lower entrance, on the 30th of January, 1889; for the upper entrance, on the 26th March 1889, and for the canal and lift-lock on the 20th of November, 1888.

The scheme, as covered by these contracts, contemplated a lock chamber 600 feet long and 85 feet wide, with a depth of water on the sills of  $16\frac{1}{4}$  feet at the lowest known water level; the width of the gate entrances to the lock to be 60 feet. This lock was designed to pass two vessels at one lockage. The prism of the canal was to be 18 feet below the lowest known water level of the river above St. Mary's Island.

Representations were, however, made by parties concerned in the navigation of this work, urging that the above dimensions should be increased, and under authority of Orders in Council of 21st of May and 3rd of July, 1891, a supplemental agreement was entered into with the contractors for the canal and lock, Messrs. Hugh Ryan & Co., on the 19th of June, 1891, whereby the following dimensions were to be adopted:—Length of lock chamber, 650 feet, width 100 feet, depth of water on the sills 19 feet, the time for completion being extended from the 10th of May, 1892, to the 10th of May, 1893.

In the session of 1891, however, a discussion took place in Parliament as to the desirability of making the entrance of the lock in a straight line with the walls of the chamber, and on the 24th of December, 1891, and 1st of April, 1892, Orders in Council were passed authorizing further changes with this view. A second supplemental agreement was accordingly made with the contractors on the 5th of April, 1892, the dimensions of the lock to be as follows:—Length of chamber 900 feet, width 60 feet, throughout, with a depth of 20 feet 3 inches of water on the sills at the lowest recorded stage of the water in the river below the lock, the date for completion being fixed as the 31st of December, 1894.

Later on it became desirable that the work should be completed at an earlier date, and under authority of an Order in Council of the 10th of October, 1892, a further agreement was made with the contractors, on the 8th of November, 1892, for the execution, by the 1st July, 1894, of all the works under their contract, including the deepening of the canal prism to a further depth of 4 feet, making it 22 feet below the lowest known river level.

By the scheme, as so modified, accommodation is afforded to three vessels lying in the lock one behind the other, one of the lake type, 320 feet long, and two of the Welland Canal type, 225 feet long, with ready means of entrance and exit on a course through the gates and lock straight with the line of the canal.

The lock and the prism of the canal were completed and ready for traffic by the end of June, 1895, but it was not until the 9th of September that the channels of approach had been sufficiently cleared to admit of regular traffic. On that day, however, the canal was opened and has since been regularly operated up to the 6th of December, though the approaches still contain some obstructions, presumed to be boulders, at a depth of 17 feet. This, however, in no way affects the full use of the canal by the largest class of lake shipping, traffic being dependent on the available depth of the river below, the navigable limit of which is at present governed by certain shoals in the American channel, and at Sailor's Encampment, reducing the depth to 16 feet at mean water level. These are in process of removal.

The expenditure on this canal during the past fiscal year amounted to \$466,151.50, making the total expenditure up to the 30th of June, 1895, \$3,258,025.24.

Details of the works will be found in the appendices. (See Appendices, pages 49\* and 129.)

### MONTREAL, OTTAWA AND KINGSTON.

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

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

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

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

The following table exhibits the intermediate distance from Montreal harbour:

Sections of Navigation.	Intermediate Distances.	Total Distances from Montreal.
	Miles.	Miles.
The Lachine Canal.....	8½	
From Lachine to Ste. Anne's Lock.....	15	23½
Ste. Anne's Lock and piers.....	½	23
From Ste. Anne's Lock to Carillon Canal.....	27	50½
The Carillon Canal.....	½	51½
From Carillon Canal to Grenville Canal.....	6¼	57¾
The Grenville Canal.....	½	63¾
From the Grenville Canal to entrance of Rideau navigation.....	56	119¾
Rideau navigation, ending at Kingston.....	126¼	245¾

\*The amount set down on page 49 as the total paid up to the 30th June, 1895 should be \$3,258,025.24, as above.

# Department of Railways and Canals.

## STE. ANNE'S LOCK.

	Old Lock.	New Lock.
Length of canal.....	$\frac{1}{2}$ mile.	$\frac{1}{2}$ mile.
Number of locks.....	1	1
Dimensions of lock.....	190 x 45 feet.	200 x 45 feet.
Total rise, or lockage.....	3 feet.	3 feet.
Depth of water on sill.....	6 “	9 “

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

This lock was closed to navigation on the 25th of November, 1894, and reopened on the 27th of April, 1895.

Navigation has been conducted without interruption during the year.

Both the old and the new locks are available. (See Appendices pp. 57 and 138.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ Nil.
Renewals, chargeable to income.....	3,694 33
Repairs.....	3,025 91
Staff and maintenance.....	2,508 14
Total.....	\$9,228 38

## THE CARILLON CANAL.

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

This canal overcomes the Carillon Rapids.

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

The canal was closed on the 30th of November, 1894, and reopened on the 29th of April, 1895.

By the construction of the Carillon dam across the River Ottawa the water at that point is raised 9 feet, enabling the river above to be used for navigation. (See Appendices pp. 58 and 138.)

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.

## GRENVILLE CANAL.

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

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

The canal was closed on the 30th of November, 1894, and reopened on the 29th of April, 1895. (See Appendices pp. 58 and 138.)

The expenditure on these two canals, the Carillon and the Grenville, during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ Nil
Renewals, chargeable to income.....	5,963 76
Repairs.....	12,303 25
Staff and maintenance.....	15,453 21
Total.....	<u>\$33,720 22</u>

Tables showing the depth of water at the above canals during the past fiscal year will be found in Appendices pp. 58 and 138.

## UPPER OTTAWA RIVER.

## CULBUTE LOCKS AND DAMS.

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

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

The Chaudière, the Des Chênes, 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 contiguous dams, all built of wood. The dams at Rocher Fendu and Grand Calumet, 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.

## Department of Railways and Canals.

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

The anticipated benefits to trade from the construction of these works have not been realized, there being practically no traffic. Authority was accordingly obtained for the abandonment of this canal and the removal of the dams. At the close of navigation in 1894, this abandonment was carried into effect. The Grand Calumet dam has been partially removed.

The expenditure on this canal during the fiscal year was as follows:—

Construction, chargeable to capital.....	Nil.
Removal of dam works, chargeable to income.....	\$1,675 26
Repairs.....	434 28
Staff and maintenance.....	436 05
Total.....	\$2,345 59

(See Appendices pp. 58 and 138.)

### RIDEAU NAVIGATION.

The Rideau system connects the River Ottawa, at the city of Ottawa, with the eastern end of Lake Ontario, at Kingston.

Length of navigation waters.....	126½ miles.
Number of locks going from Ottawa to Kingston.	{ 35 ascending. 14 descending.
Total lockage.....446½ feet	{ 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 " in rock.
Breadth at surface of water.....	80 " in earth.

#### *Perth Branch.*

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

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

By an Order in Council dated the 27th of September, 1890, it was declared to be a part of the Rideau Canal.

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

From the summit, the route towards Ottawa follows the Rideau River, and that towards Kingston follows the River Catarqui. The supply of water for the canal is derived from the reserves given in detail below.

These may be divided into three systems, viz:—

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

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

All these waters on the descending level, supplemented by those of Lake Loughboro', flow into Cranberry Lake, which, discharging through Round Tail outlet, forms the River Catarqui. The river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

The navigation stopped at Ottawa on the 26th of November, 1894, and at Kingston Mills, on the 19th, and recommenced at Ottawa on the 27th of April, 1895, and at Kingston Mills on the 30th of April.

Navigation on the Perth Branch was closed for 21 days owing to damages caused to lock gates by a passing steamer.

Extremely low water rendered navigation difficult at certain periods of the season.

Details of repairs and other works will be found in the appendices. (Pages 59 and 150.)

The expenditure on this canal for the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$	Nil.
Renewals, chargeable to income.....		31,559 48
Repairs.....		19,897 32
Staff and maintenance .....		33,827 08
Total.....		<u>\$85,283 88</u>

#### RICHELIEU AND LAKE CHAMPLAIN.

This system, commencing at Sorel, at the confluence of the River 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. John's and the River Richelieu and Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

## Department of Railways and Canals.

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

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

Section of Navigation.	Intermediate Distances 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.....	1/3 mile.
Number of locks.....	1
Dimensions of lock.....	200 feet by 45 feet.
Total rise, or lockage.....	5 “
Depth of water on sills.....	7 “ at low water.
Length of dam in eastern channel.....	300 “
“ “ western channel.....	690 “

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

There is a navigable depth in the Richelieu of 7 feet between St. Ours Lock and Chambly Basin, a distance of 32 miles.

Navigation closed on the 26th of November, 1894, and reopened on the 15th of April, 1895.

Navigation was conducted without accident or delay. (See Appendices, pages 57 and 139.)

The expenditure on this work during the past fiscal year was as follows:—

Construction, chargeable to capital.. . . . .	\$ Nil.
Renewals, chargeable to income .....	3,694 33
Repairs.....	3,025 91
Staff and maintenance .....	2,508 14
Total.....	\$9,228 38

## CHAMBLY CANAL.

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

## Dimensions of locks:—

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

This canal succeeds the 32 miles of navigable water between St. Ours Lock and Chamby Basin. The canal overcomes the rapids between Chamby and St. Johns.

The canal was closed to navigation on the 30th of November, 1894, and was reopened on the 1st of May, 1895.

Navigation was interrupted for 14 hours, owing to the giving way of a lock gate.

A description of the several works of repair and improvement executed during the year will be found in the appendices. (See Appendices, pages 57 and 139.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ Nil.
Renewals, chargeable to income .....	6,147 63
Repairs .....	11,779 12
Staff and maintenance .....	19,325 49
Total.....	<u>\$37,252 24</u>

## TRENT CANAL.

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

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

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

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

Through the River Trent, Rice Lake, the River Otonabee and Lakes Clear, Stoney, Lovesick, Deer, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake



## Department of Railways and Canals.

Balsam, the summit water, about 165 miles from Trenton; from Lake Balsam by a canal and the River Talbot to Lake Simcoe; thence by the River Severn to Georgian Bay, Lake Huron, the total distance being about 235 miles.

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

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.....		14½
“ Heeley's Fall Dam to Peterborough.....	51¾	
“ Peterboro' to Lakefield.. .. .		9½
“ Lakefield to a point across Balsam Lake.....	61	
	132¼	32¾
 Total distance, Bay of Quinté to a point across Balsam Lake.....		 165
From Sturgeon Point on Sturgeon Lake, 48¾ miles from Lakefield, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog. ....		 27½

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

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

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

At Burleigh Rapids, 10 miles from Young's Point, a canal about 2½ miles in length, passes the Burleigh and Lovesick Rapids, and gives communication between Stoney Lake and Deer Bay.

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

At Bobcaygeon,  $15\frac{1}{2}$  miles from Buckhorn Rapids, a dam, 553 feet long, controls the water level up to Fenelon Falls.

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

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

1 lock at Rosedale, (maintained by the Ontario Government).....100' x 30' x 4' 6" to 6' 6" depth water on mitre sill.

2 locks at Fenelon.....	134' x 33' x 5' 0" to 7' 6" depth water on mitre sill.
1 do Lindsay.....	do 5' 0" to 7' 0" do do
1 do Bobcaygeon..	do 5' 8" to 7' 6" do do
1 do Buckhorn.....	do 5' 0" to 9' 0" do do
1 do Lovesick.....	do 5' 0" to 9' 4" do do
2 do Burleigh.....	do 2' 4" to 7' 0" do do
1 do Young's Point (a Provincial Government work.)	134' x 33" x 5' 0" to 14' 0" depth water on mitre sill.
1 do Peterborough.	134' x 33" x 5' 0" to 10' 0" depth water on mitre sill.
1 do Hastings.....	do 7' 0" to 10' 6" do do
1 do Chisholms.....	do 5' 0" to 8' 6" do do

13

#### NEW WORKS.

Of the  $9\frac{1}{2}$  miles between Lakefield and Peterborough, the first section, 6 miles, is under contract and in progress. The balance is surveyed and the plans are prepared.

On the division between Lake Balsam and Lake Simcoe the first section,  $5\frac{1}{2}$  miles, is under contract and work is progressing. Surveys and plans of the balance, about  $13\frac{1}{2}$  miles, are being prepared. One feature of the work on this division will be a hydraulic lift lock with a lift of 50 feet.

Navigation closed on the Central Reach, on the 23rd of November, 1894, and re-opened on the 26th of April, 1895; on the Lower Reach it closed on the 24th of November 1894 and re-opened on the 21st of April, 1895.

There was no interruption to navigation.

Details of the several repairs executed will be found in the appendices, pages 58 and 145.

The expenditure on this canal system during the past fiscal year was as follows:

Construction, chargeable to capital.....	\$ 53,907.70
Renewals, chargeable to income.....	21,143.41
Repairs.....	3,374.49
Staff and maintenance .....	4,184.18
Total.....	<u>\$82,609.78</u>

## Department of Railways and Canals.

### ST. PETER'S CANAL, CAPE BRETON.

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

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

Navigation was closed on the 15th of December, 1894; since that date the canal has been closed for the execution of important repairs.

The repairs and improvements carried out are described in the appendices. (See Appendices, pages 61 and 179.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital*.....	\$ 868 44
Renewals, chargeable to income.....	26,222 46
Repairs.....	353 55
Staff.....	2,499 81
Total.....	<u>\$29,944 26</u>

### SOULANGES CANAL.

This work is being constructed on the north side of the River St. Lawrence in place of enlarging the Beauharnois Canal on the south side. It follows a line extending upwards from Cascades Point to Macdonald's Point, near Coteau Landing. The scheme contemplates a canal on a practically straight line, 14 miles long, comprising four lift-locks, overcoming a total rise of 82½ feet. The number of locks on the Beauharnois Canal, including the guard-locks, is nine. The dimensions of the Soulanges locks will be those of the enlarged system, namely, length, 270 feet, width, 45 feet, depth of water on sills, 14 feet. The estimated cost of the canal is \$4,750,000. The works of construction of the canal proper, and bridge and lock masonry have been placed under contract, and are in progress. The chief engineer states that it will probably take at least three years before this canal is completed.

\*Due to legal expenses charged against this canal under the general appropriation vote for departmental litigation.

Further information will be found in the report of the chief engineer, and in that of the engineer in charge. (See Appendices pages 49 and 130.)

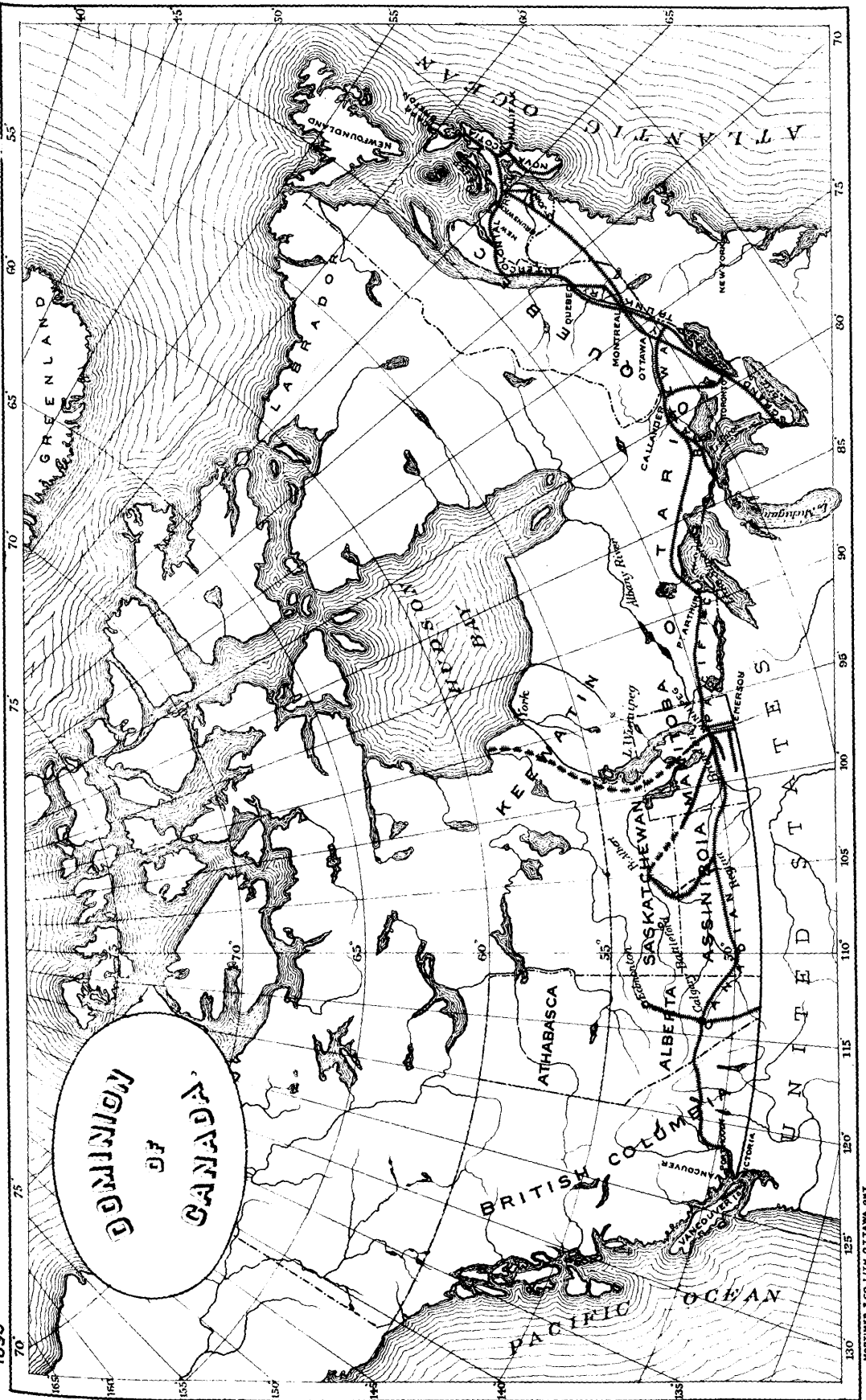
The expenditure on this work for the past fiscal year was, \$752,016.53, making a total of \$1,739,969.48 up to the 30th of June, 1895. The total expenditure up to the 1st of October is \$1,899,535.16.

I have the honour to be,

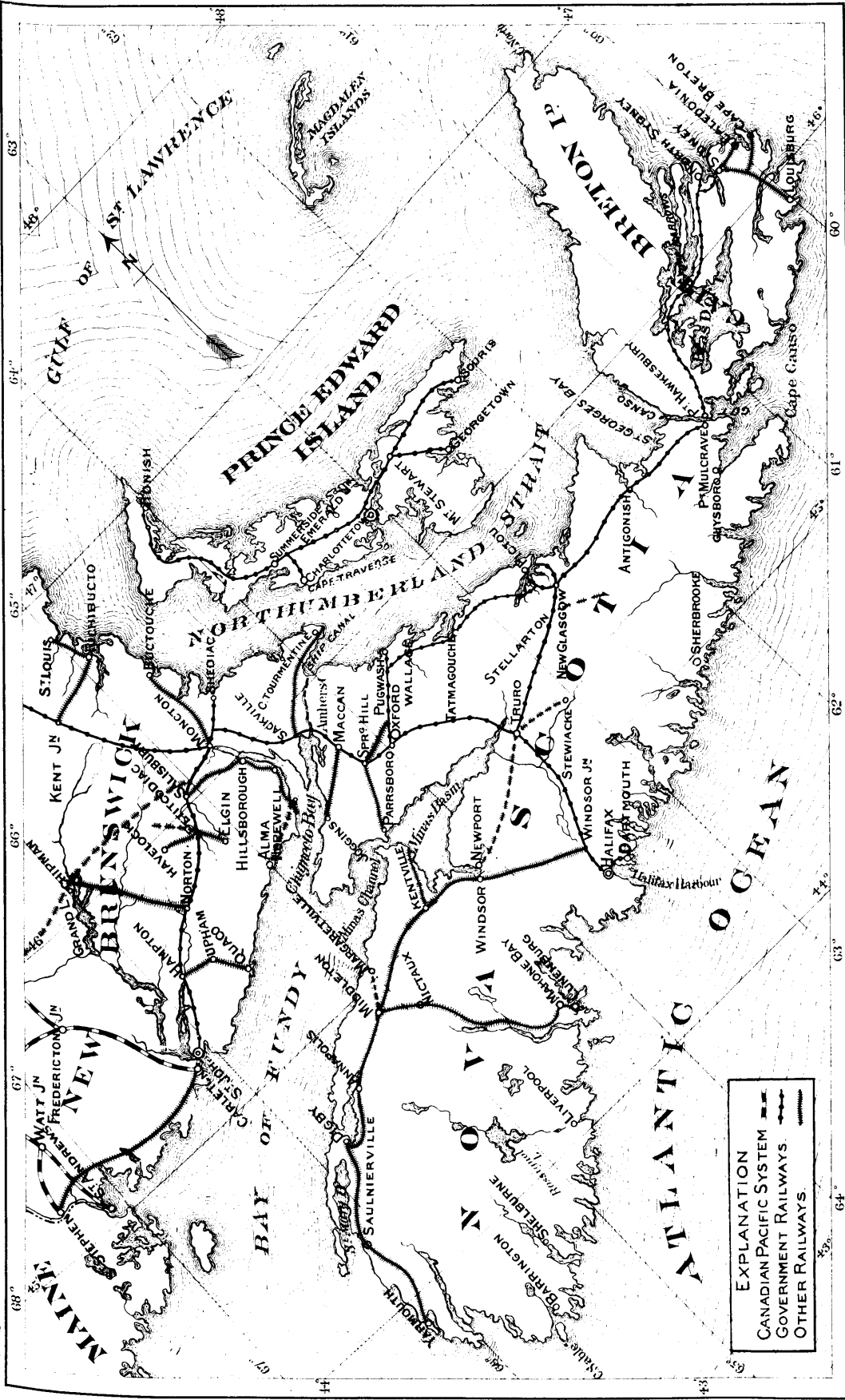
Your Excellency's most obedient servant,

JOHN HAGGART,

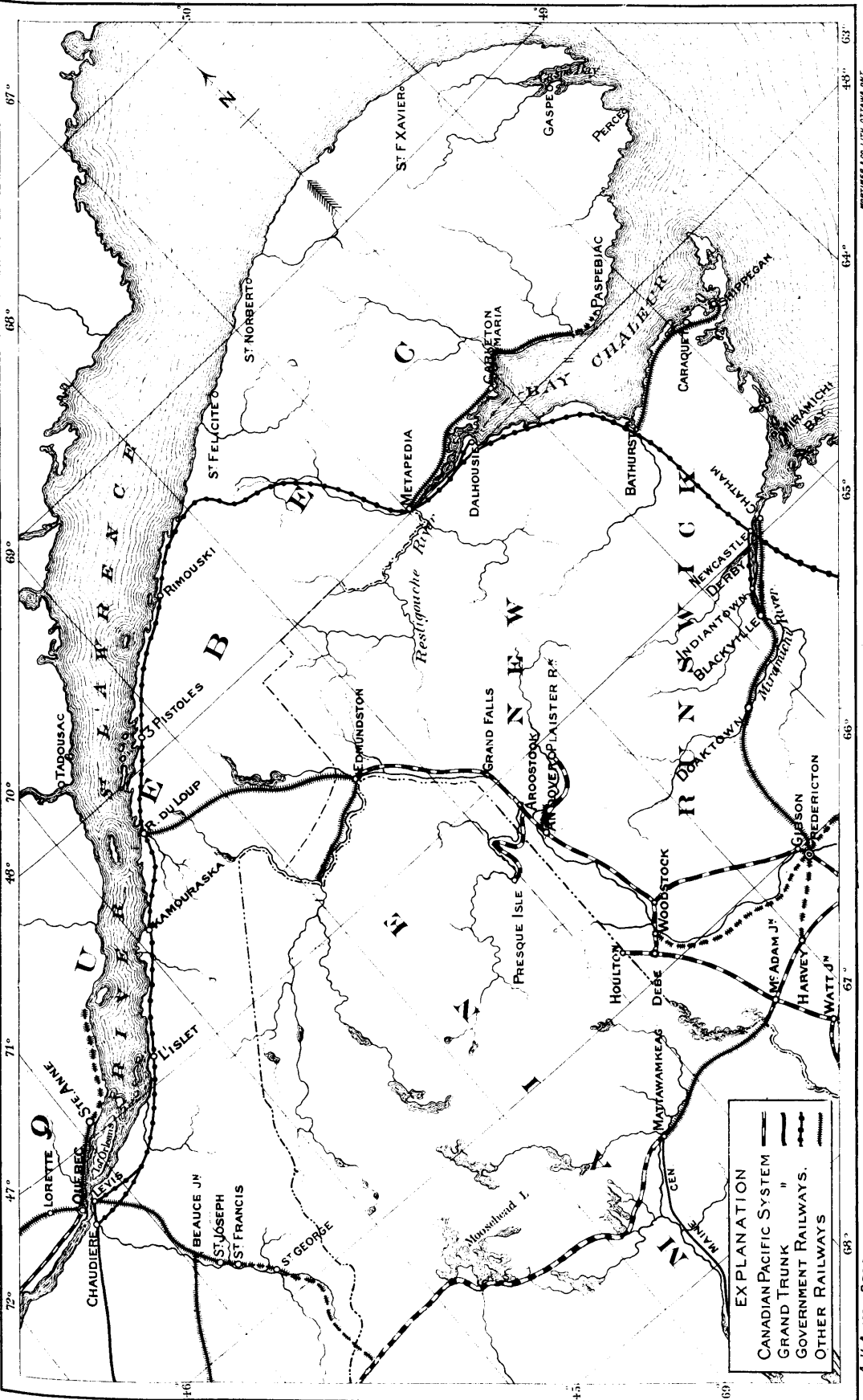
*Minister of Railways and Canals.*



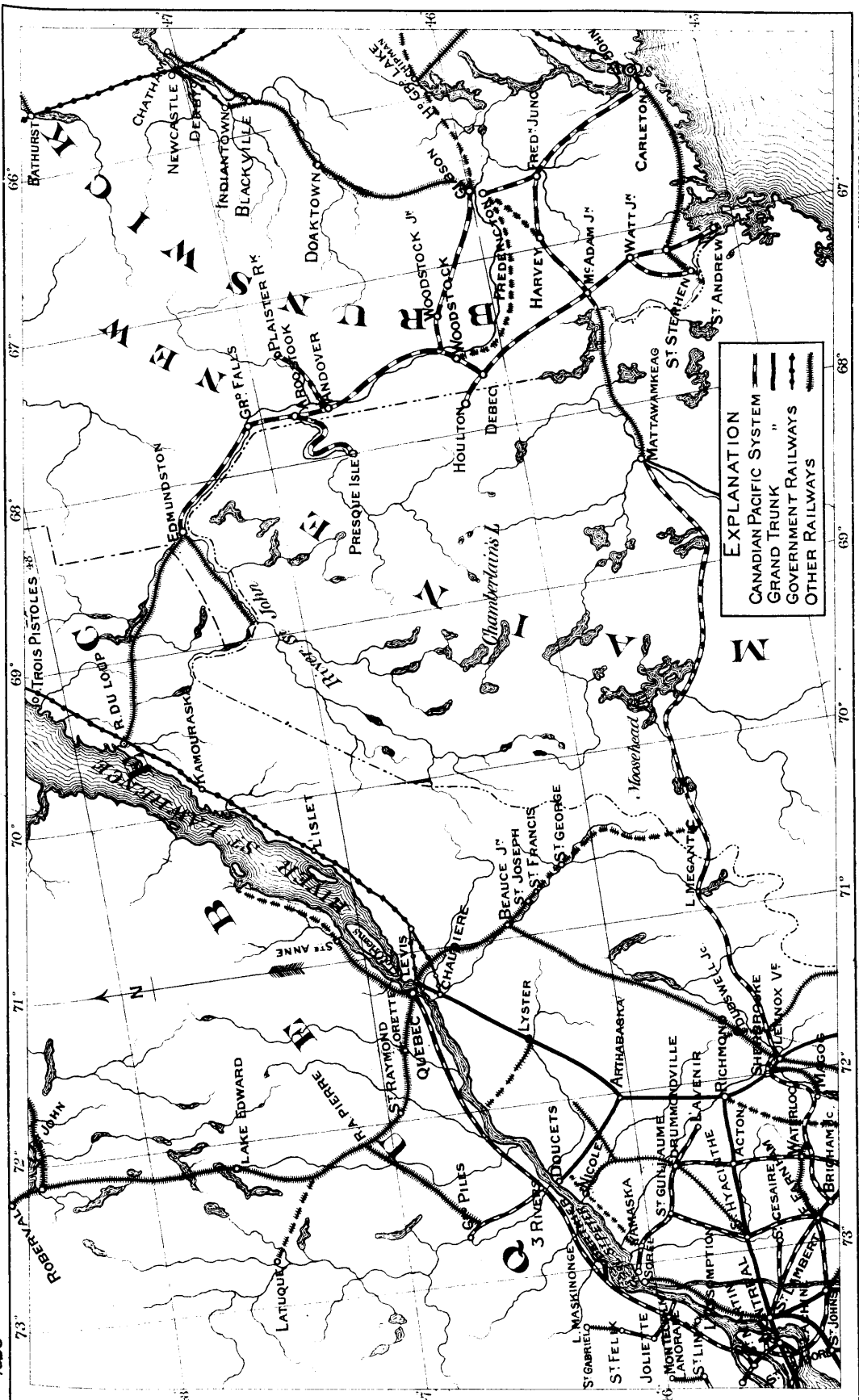
**DOMINION  
OF  
CANADA.**



**EXPLANATION**  
 CANADIAN PACIFIC SYSTEM  
 GOVERNMENT RAILWAYS  
 OTHER RAILWAYS



**EXPLANATION**  
 CANADIAN PACIFIC SYSTEM  
 GRAND TRUNK  
 GOVERNMENT RAILWAYS.  
 OTHER RAILWAYS



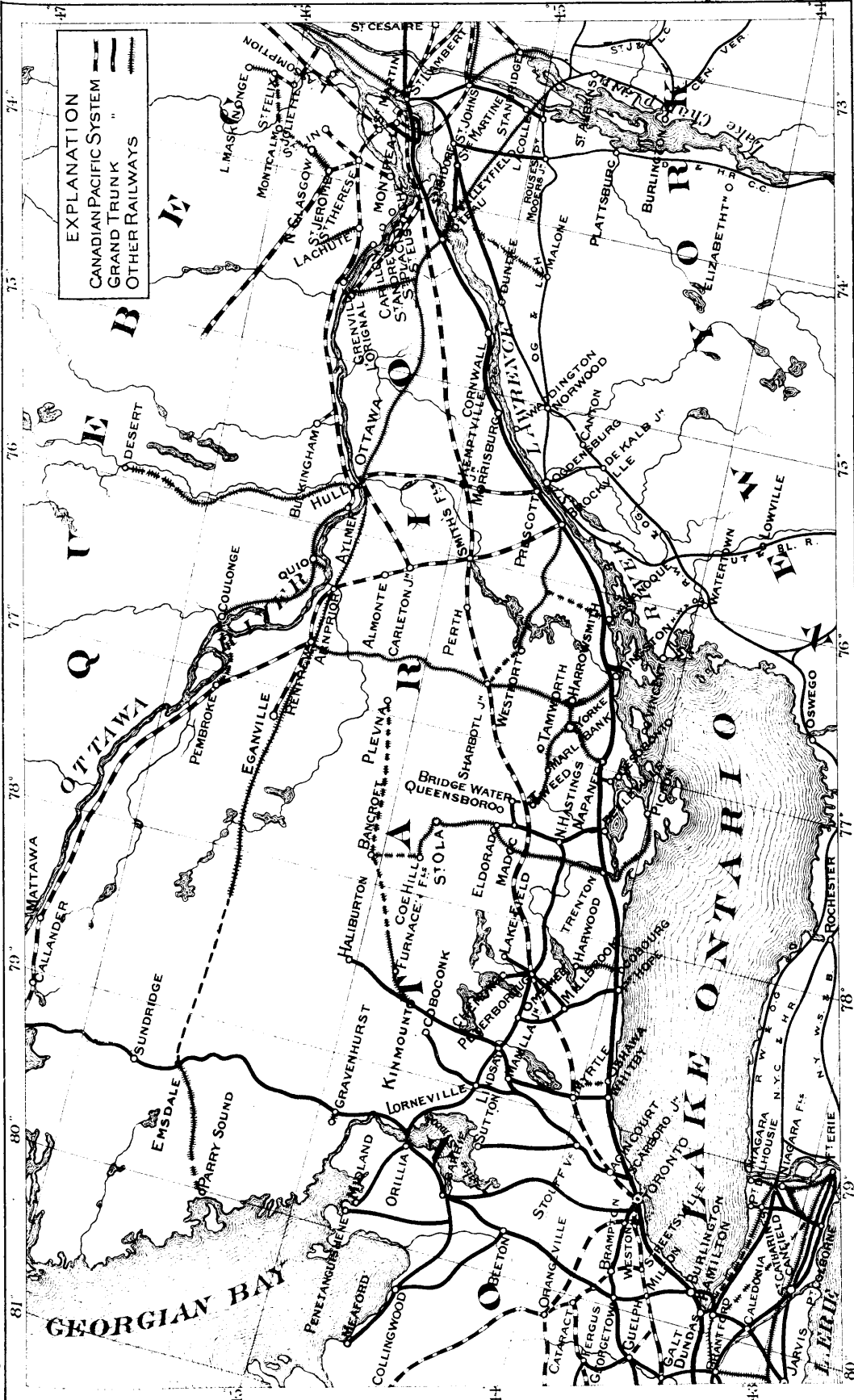
**EXPLANATION**

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

MONTREAL AND LITH. OTTAWA ONT.

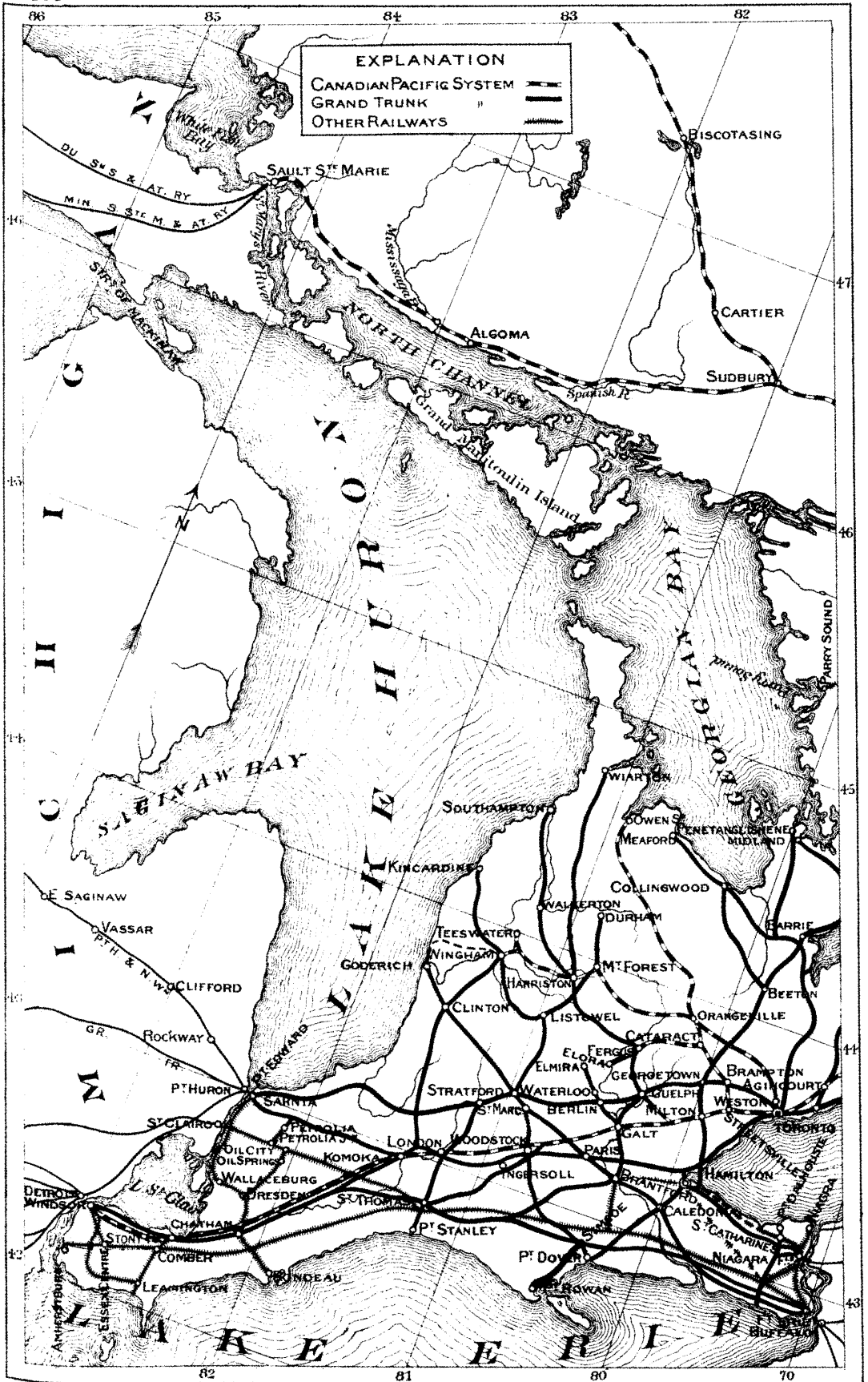
A. L. ALMON DEL.



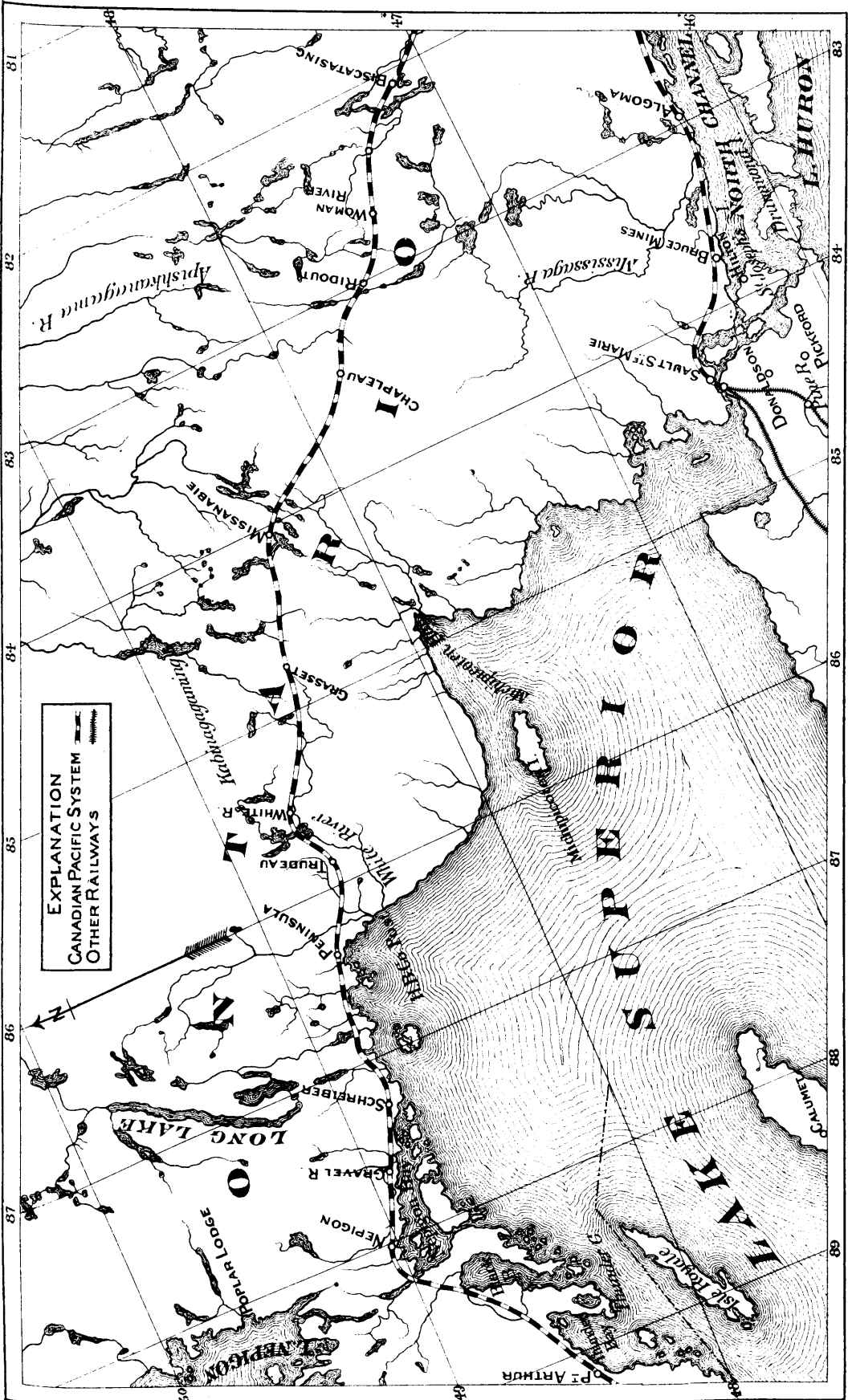


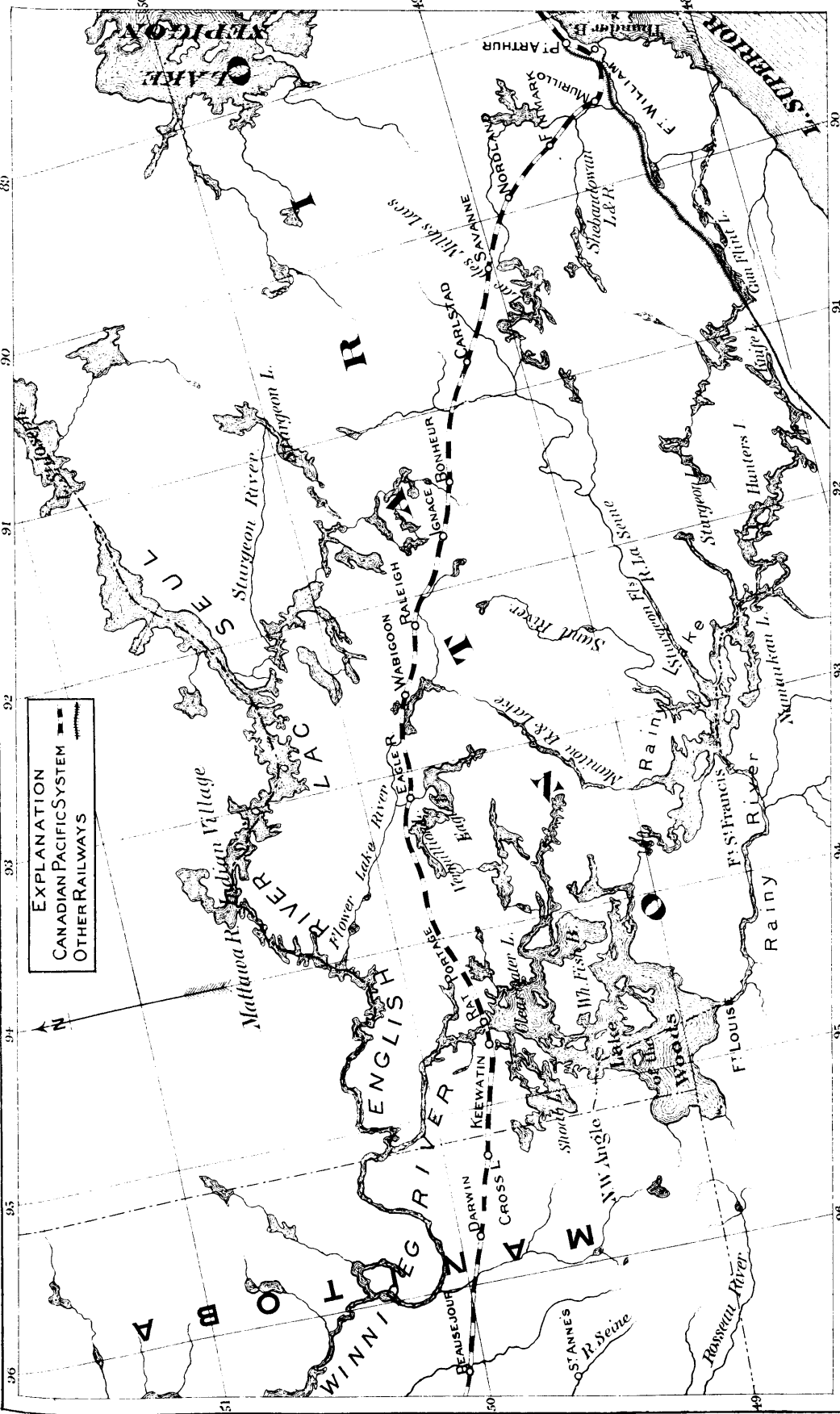
MARTNER & CO. LITH. OTTAWA, ONT.

A. U. ALMON, DEL.

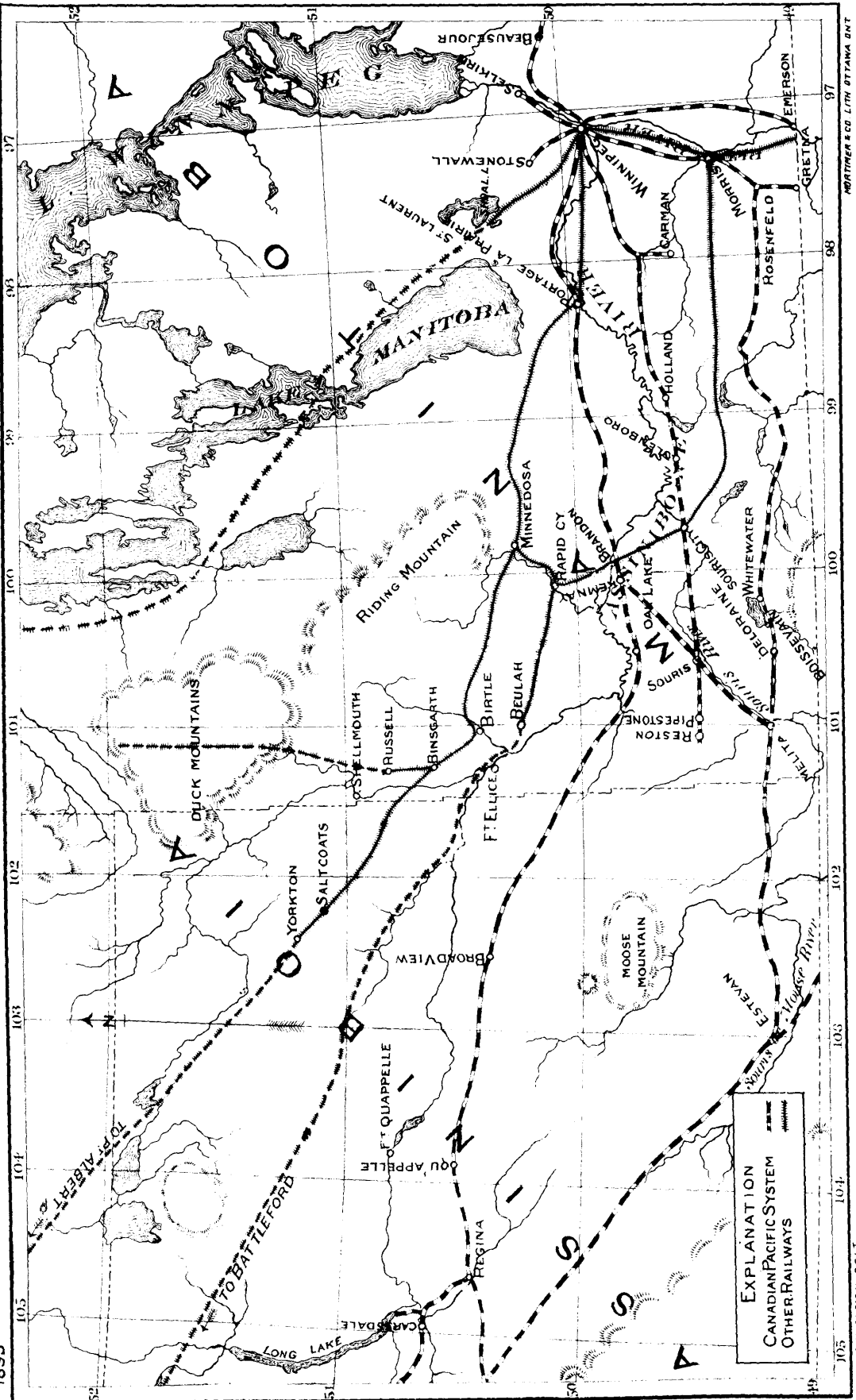


**EXPLANATION**  
 CANADIAN PACIFIC SYSTEM ———  
 GRAND TRUNK " ———  
 OTHER RAILWAYS - - - - -

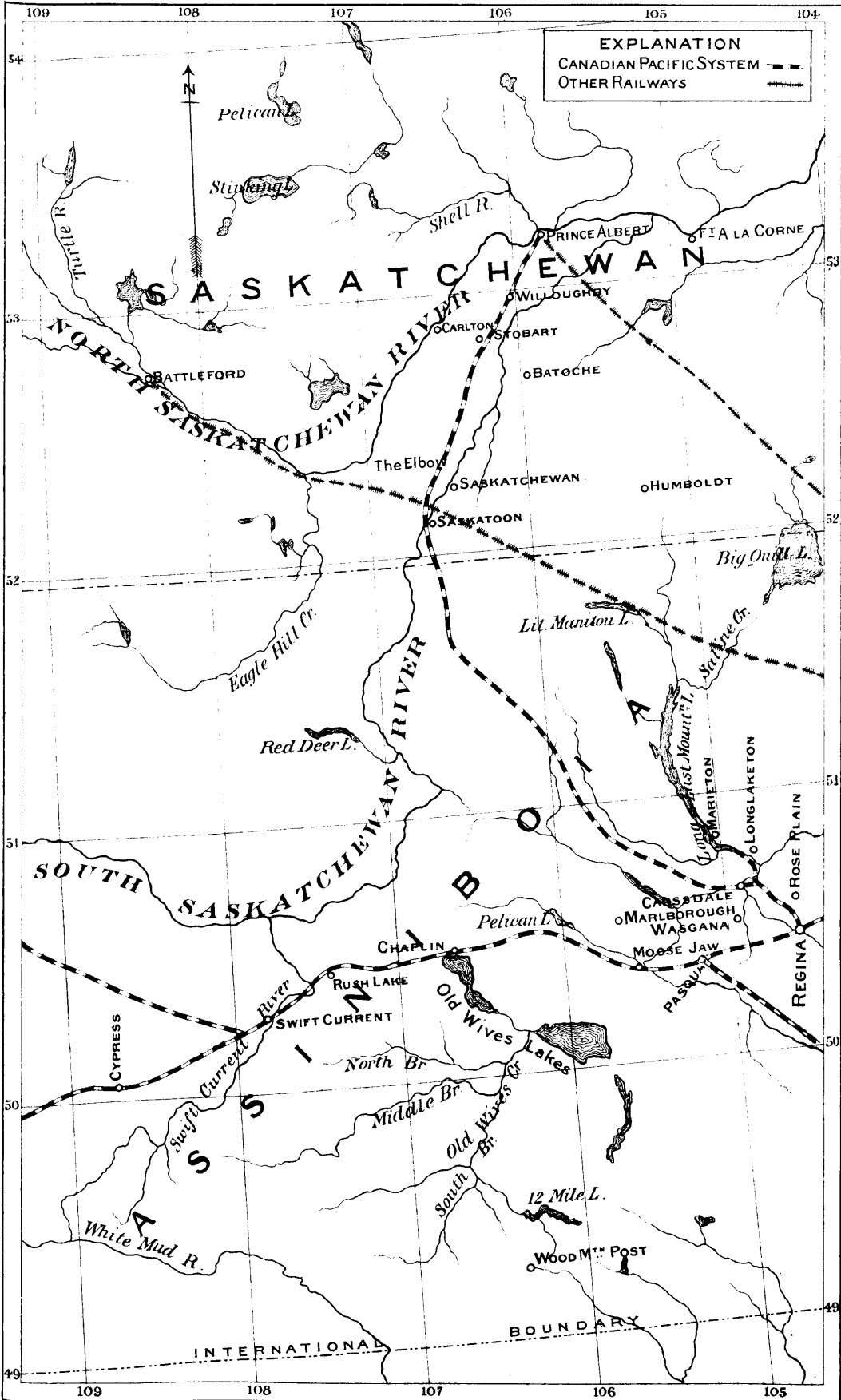




**EXPLANATION**  
 CANADIAN PACIFIC SYSTEM ———  
 OTHER RAILWAYS - - - - -



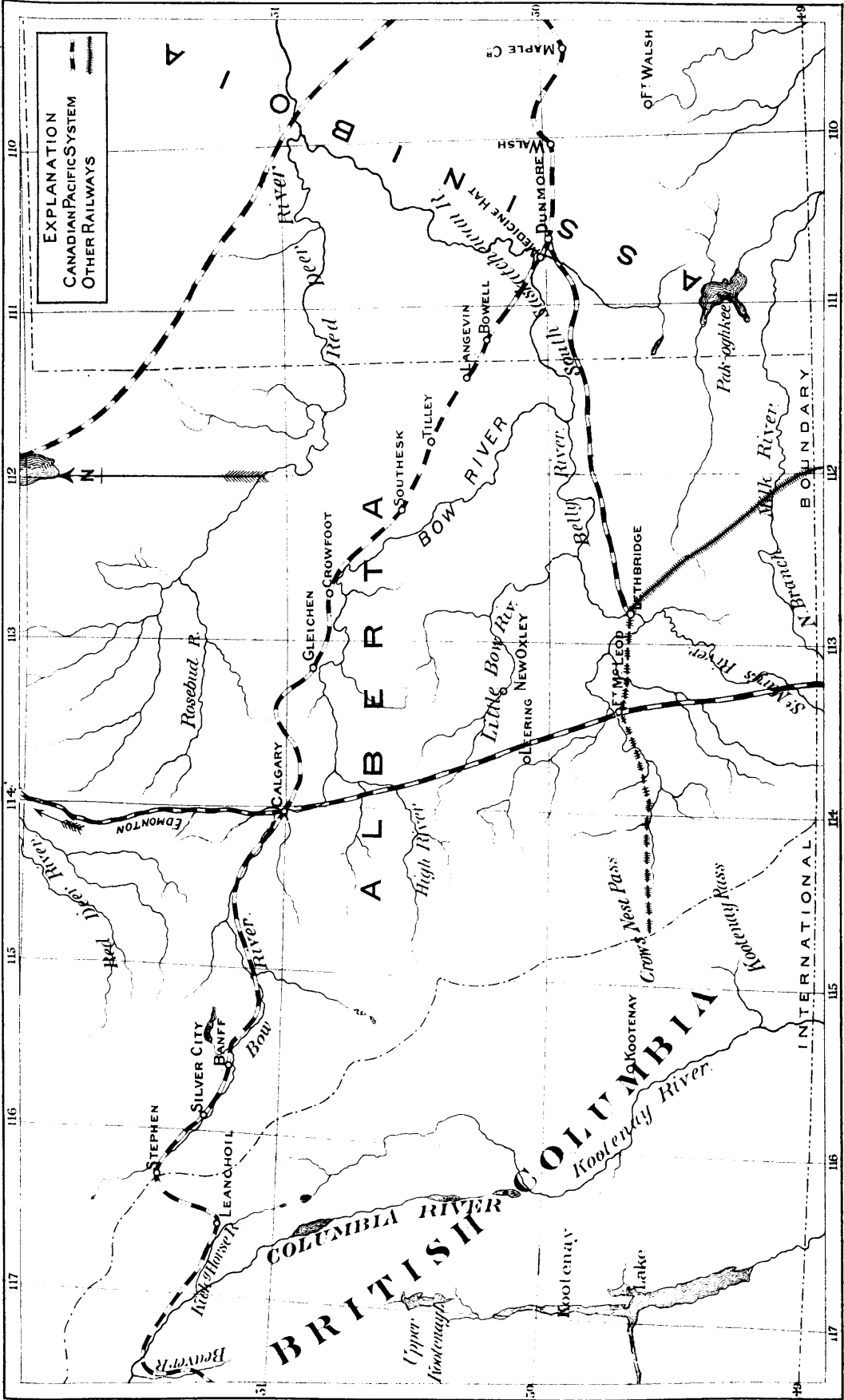
EXPLANATION  
 CANADIAN PACIFIC SYSTEM  
 OTHER RAILWAYS

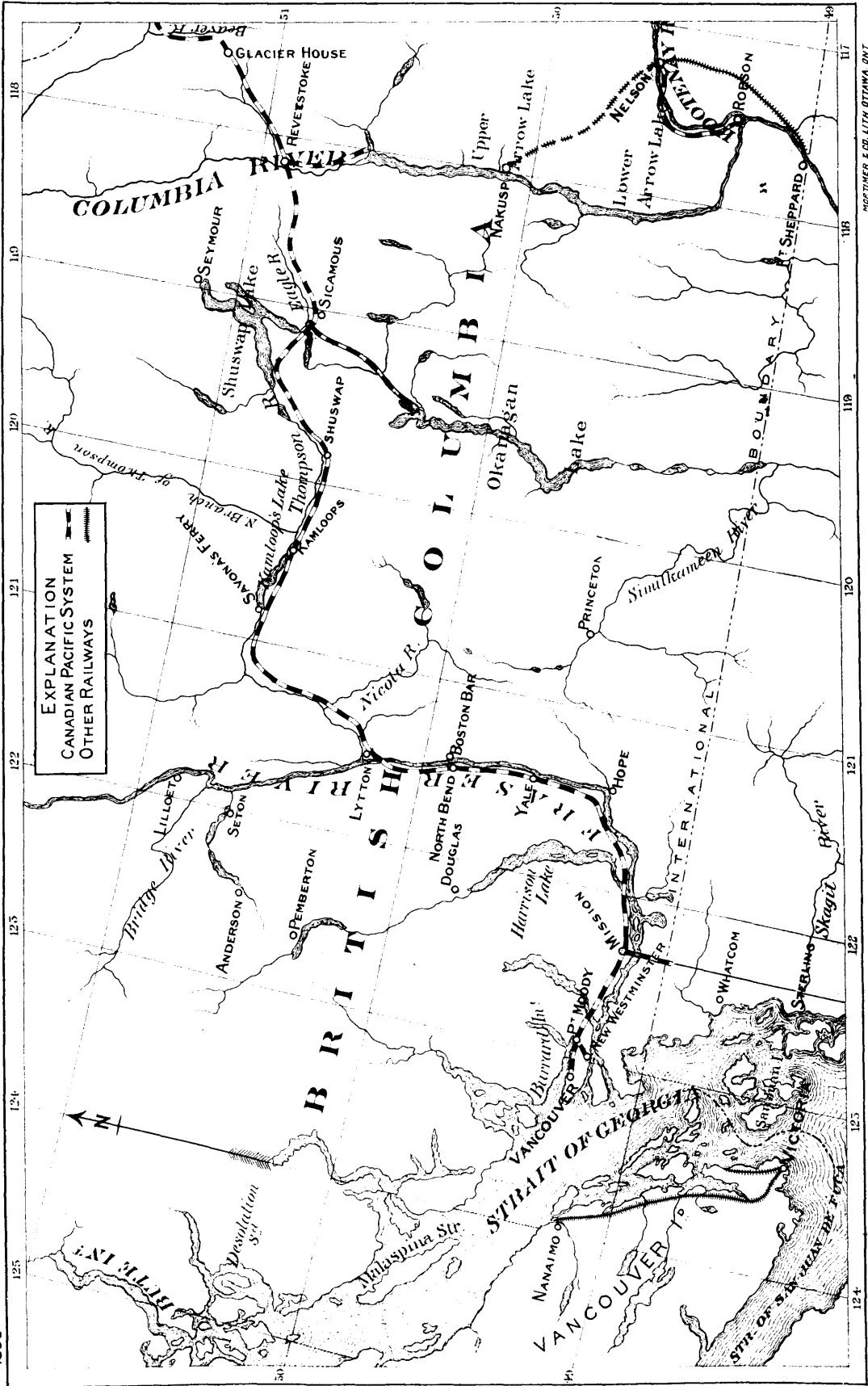


**EXPLANATION**  
 CANADIAN PACIFIC SYSTEM ———  
 OTHER RAILWAYS ———

INTERNATIONAL

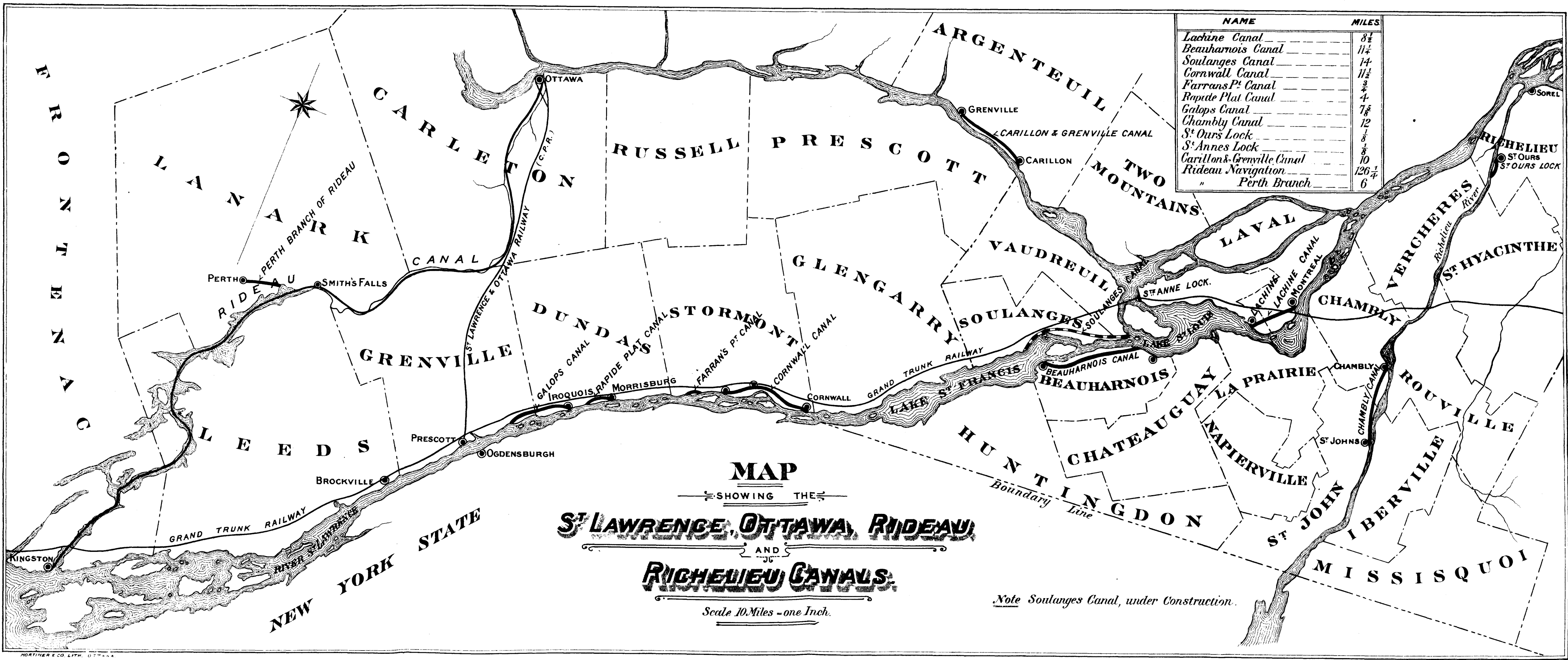
BOUNDARY





**EXPLANATION**  
 CANADIAN PACIFIC SYSTEM  
 OTHER RAILWAYS





NAME	MILES
Lachine Canal	8½
Beauharnois Canal	11¼
Soulanges Canal	14
Cornwall Canal	11½
Farrans Pt Canal	¾
Rapide Plat Canal	4
Galops Canal	7½
Chambly Canal	12
S <sup>t</sup> Ours Lock	½
S <sup>t</sup> Annes Lock	¾
Carillon & Grenville Canal	10
Rideau Navigation	126¼
" Perth Branch	6

**MAP**

SHOWING THE

**ST. LAWRENCE, OTTAWA, RIDEAU,  
AND  
RICHELIEU CANALS.**

Scale 10 Miles - one Inch.

*Note* Soulanges Canal, under Construction.

FRONTENAC

LAVAL  
RIDEAU  
PERTH BRANCH OF RIDEAU  
SMITH'S FALLS

CARLETON  
OTTAWA  
(C.P.R.)  
ST. LAWRENCE & OTTAWA RAILWAY

RUSSELL  
PRESCOTT  
CARILLON & GRENVILLE CANAL  
GRENVILLE  
CARILLON

ARGENTEUIL  
TWO MOUNTAINS  
VAUDREUIL  
SOULANGES  
ST ANNE LOCK  
LACHINE  
LACHINE CANAL  
MONTREAL

LAVAL

VERCHERES  
RICHELIEU RIVER  
ST. OURS  
ST. OURS LOCK  
RICHELIEU  
ST. HYACINTHE

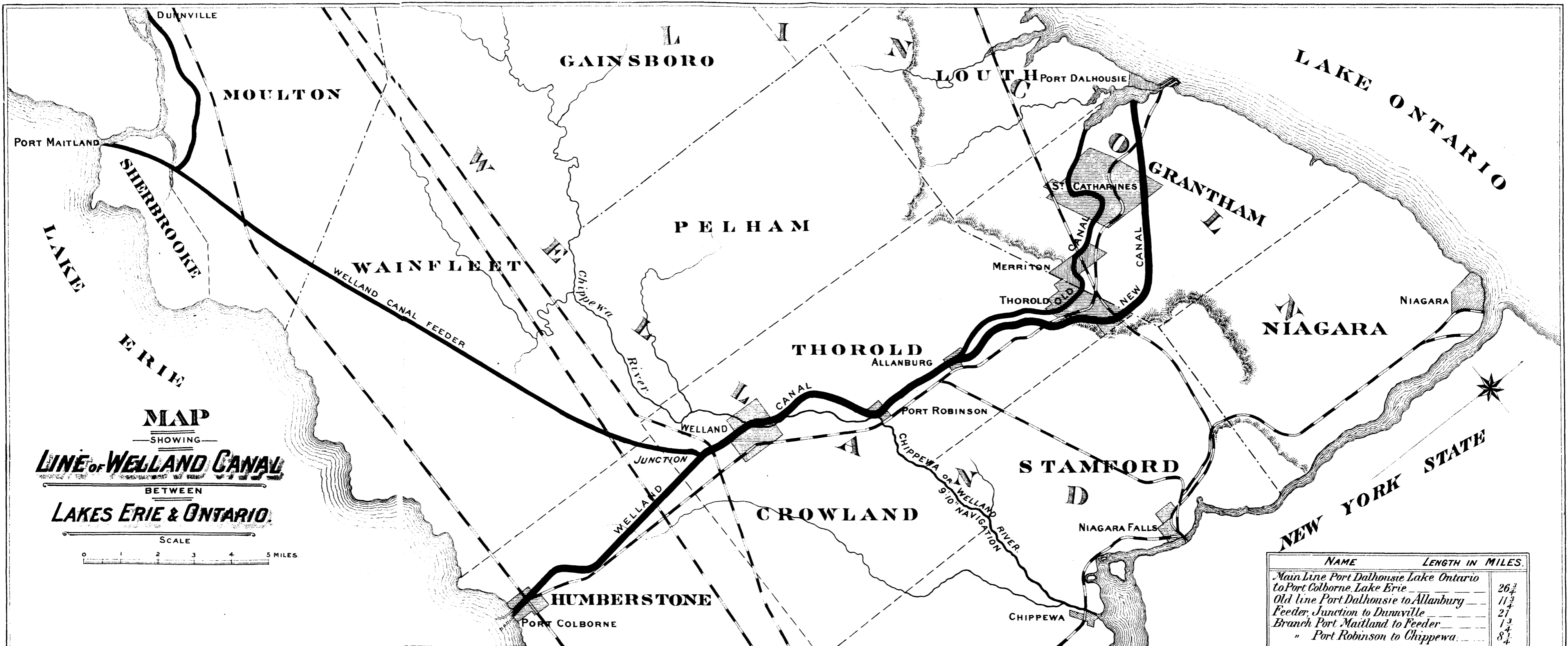
DUNDAS  
STORMONT  
GALOPS CANAL  
IROQUOIS RAPIDE PLAT CANAL  
MORRISBURG  
FARRANS PT. CANAL  
CORNWALL CANAL  
CORNWALL

LAKE ST. FRANCIS  
BEAUHARNOIS  
CHATEAUGUAY  
HUNTINGDON  
GRAND TRUNK RAILWAY

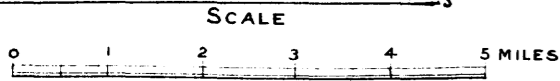
LA PRAIRIE  
NAPIERVILLE  
ST. JOHN  
CHAMBLY CANAL  
ST. JOHN'S

ROUVILLE  
MISSISSQUOI

LEEDS  
PRESCOTT  
OGDENSBURGH  
BROCKVILLE  
GRAND TRUNK RAILWAY  
NEW YORK STATE  
KINGSTON  
RIVER ST. LAWRENCE

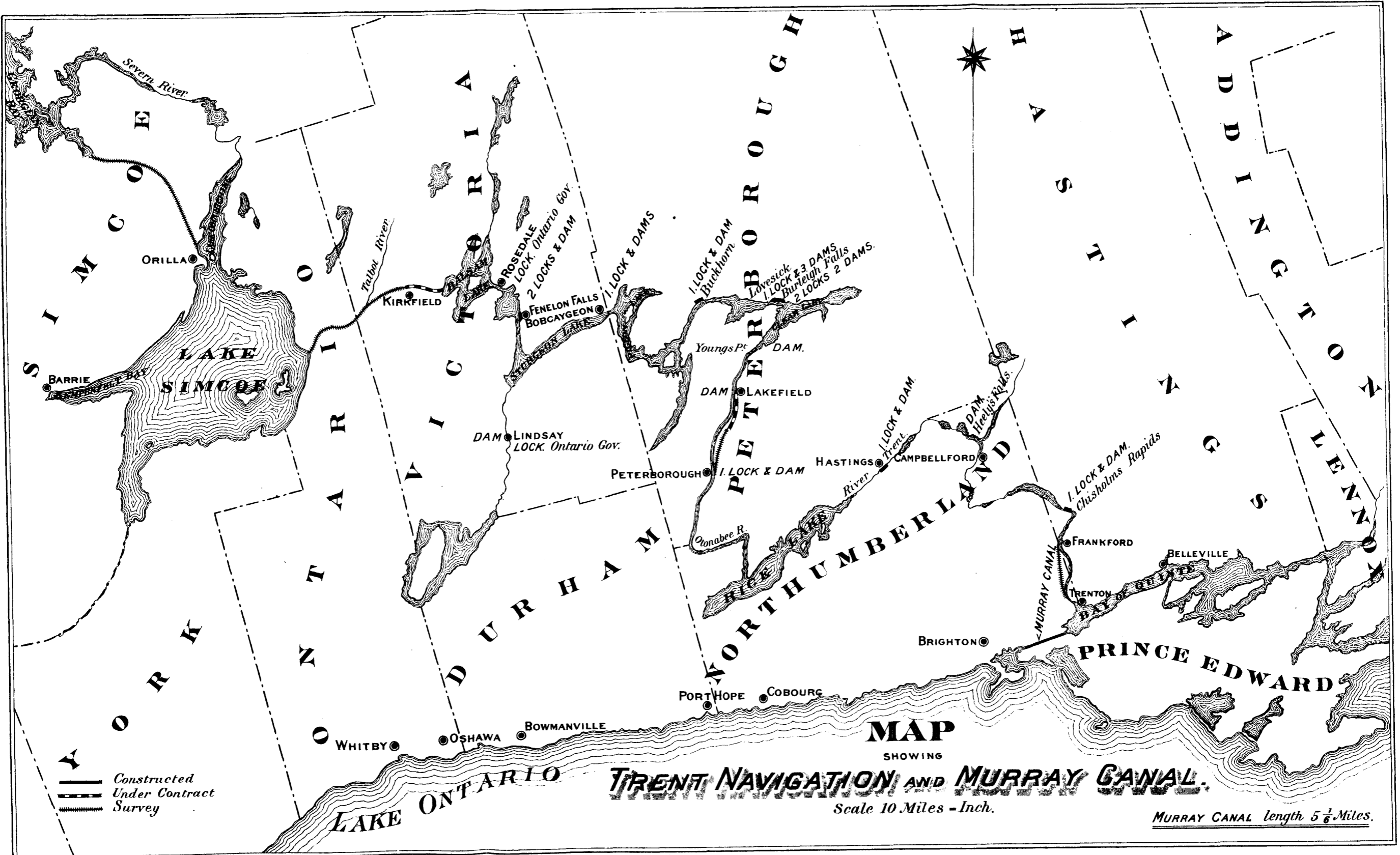


**MAP**  
 SHOWING  
**LINE OF WELLAND CANAL**  
 BETWEEN  
**LAKES ERIE & ONTARIO.**



NAME	LENGTH IN MILES.
Main Line Port Dalhousie Lake Ontario to Port Colborne Lake Erie	26 <sup>3</sup> / <sub>4</sub>
Old line Port Dalhousie to Allanburg	11 <sup>3</sup> / <sub>4</sub>
Feeder Junction to Dunnville	21
Branch Port Maitland to Feeder	1 <sup>3</sup> / <sub>4</sub>
" Port Robinson to Chippewa	8 <sup>1</sup> / <sub>4</sub>

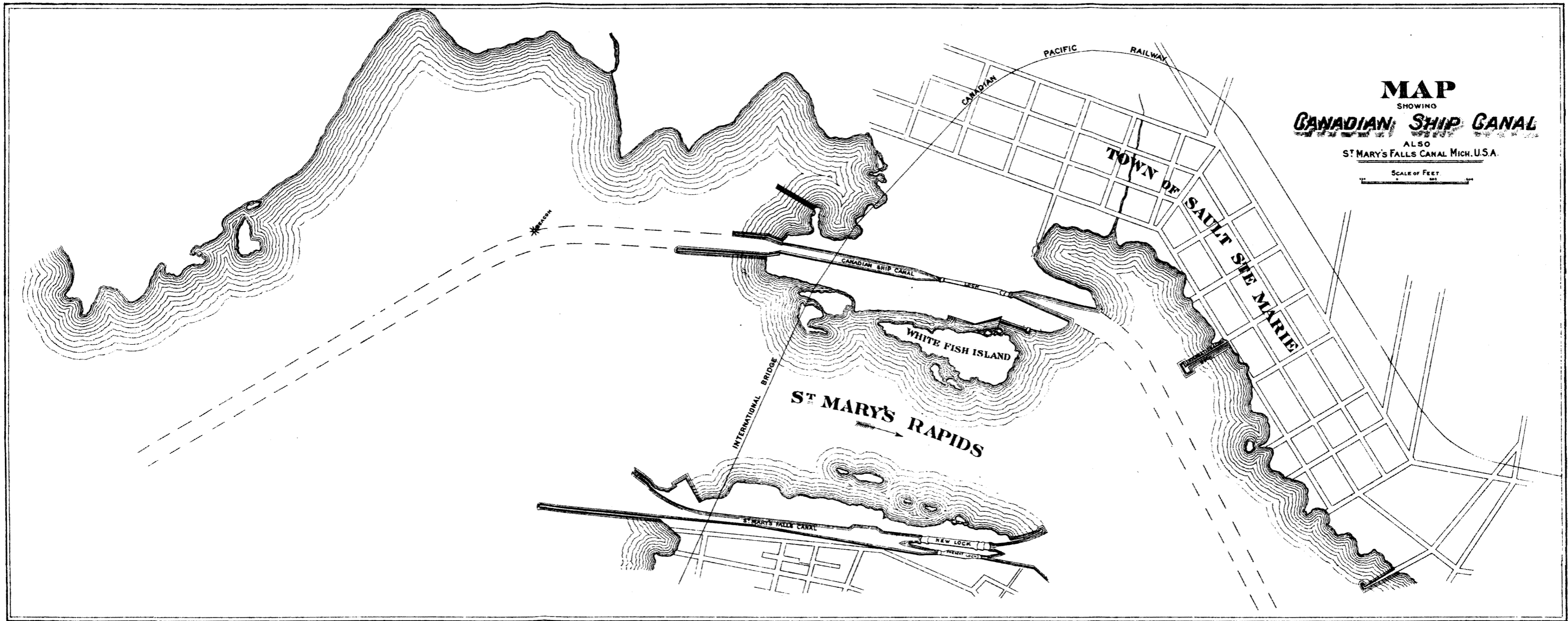
MORTIMER & CO. LITH. OTTAWA



——— Constructed  
 - - - Under Contract  
 ..... Survey

**MAP**  
 SHOWING  
**TRENT NAVIGATION AND MURRAY CANAL.**  
 Scale 10 Miles - Inch.

MURRAY CANAL length  $5 \frac{1}{8}$  Miles.



**MAP**  
SHOWING  
**CANADIAN SHIP CANAL**  
ALSO  
**ST MARY'S FALLS CANAL MICH. U.S.A.**  
SCALE OF FEET

MORTIMER & CO. LITH. OTTAWA

# Department of Railways and Canals.

## 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, 1895.

Name of Work.	Capital.	Income.	Staff.	Repairs.
CANALS.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Lachine.....	\$190,589 36			
Less refunds previous years.....	645 00			
	189,944 36	25,842 00	56,337 44	25,891 45
Soulanges.....	\$752,216 53			
Less refunds previous years.....	200 00			
	752,016 53			
Cornwall.....	450,689 65	21,497 74	15,414 56	13,053 55
Lake St. Louis.....	4,753 14			
Rapide Plat. } Williamsburg.....	228,892 70	13,720 36	9,675 09	7,371 37
Galops.....	118,464 53			
Beauharnois.....		27,982 93	20,428 59	12,299 49
Welland.....	3,809 35	24,245 02	90,438 07	48,270 94
Murray.....			5,354 97	5,063 49
Trent.....	53,907 70	21,143 41	4,184 18	3,374 49
Carillon.....		5,963 76	15,453 21	12,303 25
Grenville.....		26,222 46	2,499 81	353 55
St. Peter's.....	868 44		3,432 73	
Sault Ste. Marie.....	466,151 50			
St. Lawrence.....	182,775 75			
Chambly.....		6,147 63	19,325 49	11,779 12
Rideau.....		31,559 48	33,827 08	19,897 32
Culbute.....		1,475 26	436 05	434 28
St. Anne's.....		3,694 33	2,598 14	3,025 91
St. Ours.....			2,161 63	915 50
Miscellaneous works not provided for.....		3,805 51	865 69	
Surveys and inspections.....		326 77		
Salaries of extra clerks and copyists.....		1,884 85		
Salaries of engineers, draughtsmen and extra clerks.....		17,420 02		
Lachine Canal Commission.....		6,563 20		
Dredge vessels, Lachine.....				2,744 11
do Rideau.....				5,822 39
Salaries and contingencies canal officers.....			39,655 52	
Sunday labour.....			11,681 85	
<b>Total on Canals.....</b>	<b>2,452,273 65</b>	<b>239,494 73</b>	<b>333,680 10</b>	<b>172,600 21</b>
<b>RAILWAYS.</b>				
Intercolonial.....	327,034 51		2,936,902 74	
Windsor Branch.....			14,640 07	
Prince Edward Island.....			232,905 19	
Canadian Pacific.....	49,209 77			
Annapolis and Digby.....	570 55			
Repairs and alterations to car "Victoria".....		3,200 00		
Gratuity to James Rutherford.....		500 00		
Compensation to A. H. Archibald.....		4,000 00		
Compassionate allowance to sufferers by accident at Lévis.....			11,898 17	
Compensation to Mr. Martin for injuries sustained.....			1,500 00	
Railway subsidies.....	1,123,949 10			
Surveys and inspections.....		4,543 91		
Railway statistics.....		977 36		
<b>Total on Railways.....</b>	<b>1,500,763 93</b>	<b>13,221 27</b>	<b>3,197,846 17</b>	
<b>Total on Railways and Canals..</b>	<b>3,953,037,58</b>	<b>252,716 00</b>	<b>3,531,526 27</b>	<b>172,600 21</b>

Total amount expended, \$7,909,880.06.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

LEONARD SHANNON,  
Accountant.

## APPENDIX No. 2.

STATEMENTS showing the amounts expended on Construction, Renewals, Ordinary Repairs and Working Staff of the Canals of the Dominion of Canada, up to the 30th June, 1895.

## ST. PETER'S CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation	...	156,523 32			
do since do	1868	21,519 72			
do do do	1869	70,719 80			
do do do	1870		46,193 57		
do do do	1871			225 36	555 78
do do do	1872			280 00	6,122 07
do do do	1873			343 32	6,539 58
do do do	1874			725 93	1,558 57
do do do	1875	20 97		560 00	889 35
do do do	1876	11,125 00		641 55	
do do do	1877	63,330 18		600 00	17 45
do do do	1878	26,511 51		600 00	
do do do	1879	107,337 75		631 50	
do do do	1880	80,120 54		400 00	
do do do	1881	69,434 76		959 58	
do do do	1882	484 00		1,920 54	200 63
do do do	1883			2,089 19	232 42
do do do	1884	2,471 40		2,601 47	367 85
do do do	1885	16,820 15		1,929 11	183 11
do do do	1886	2,316 85		2,360 67	297 81
do do do	1887	1,087 75	750 00	2,777 13	343 23
do do do	1888			3,217 77	1,588 40
do do do	1889		500 00	3,085 29	353 38
do do do	1890			3,110 15	255 34
do do do	1891	972 65	510 53	3,255 30	312 02
do do do	1892	14,387 00	30,936 82	3,007 70	1,461 24
do do do	1893	811 59	9,987 78	2,938 15	1,856 30
do do do	1894	437 05	3,852 21	2,935 94	1,966 70
do do do	1895	868 44	26,222 46	2,499 81	353 55
Total	.....	647,300 43	118,953 37	43,695 46	25,474 78

LEONARD SHANNON,

*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

# Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

## BAIE VERTE CANAL—SURVEY.

	Year ending 30th June.	Capital.	Income.
		\$ cts.	\$ cts.
Government expenditure prior to Confederation.....	1868		
do since do .....	1869		
do do do .....	1870		
do do do .....	1871		17,929 34
do do do .....	1872		6,399 41
do do do .....	1873		14,943 83
do do do .....	1874		4,018 90
do do do .....	1875		443 00
do do do .....	1876		110 75
do do do .....	1877		22 30
do do do .....	1878		
do do do .....	1879		
do do do .....	1880		
do do do .....	1881		520 00
do do do .....	1882		
do do do .....	1883		
do do do .....	1884		
do do do .....	1885		
do do do .....	1886		
do do do .....	1887		
do do do .....	1888		
do do do .....	1889		
do do do .....	1890		
do do do .....	1891		
do do do .....	1892		
do do do .....	1893		
do do do .....	1894		
do do do .....	1895		
<b>Total</b> .....			<b>44,387 53</b>

**LEONARD SHANNON,**  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*  
LACHINE CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Expenditure by Imperial Government. . . . .		40,000 00			
Government expenditure prior to Confederation . . . . .		2,547,532 85			
do since do . . . . . 1868			1,852 70	13,742 05	10,431 51
do do do . . . . . 1869		2,000 00		14,209 02	12,085 84
do do do . . . . . 1870				15,834 49	13,302 39
do do do . . . . . 1871			12,231 40	17,478 52	15,093 25
do do do . . . . . 1872		36,708 15		16,076 93	12,334 69
do do do . . . . . 1873		7,824 28	33,158 21	23,601 03	34,300 60
do do do . . . . . 1874		158,618 35		25,811 07	22,828 66
do do do . . . . . 1875		197,420 52		28,592 01	30,057 34
do do do . . . . . 1876		327,769 39		33,797 73	29,103 65
do do do . . . . . 1877		1,439,375 73		33,148 86	19,824 33
do do do . . . . . 1878		1,484,619 63		39,062 97	13,646 41
do do do . . . . . 1879		958,053 30		42,338 84	12,490 78
do do do . . . . . 1880		369,566 74		38,950 90	10,223 62
do do do . . . . . 1881		292,165 51		39,027 99	19,888 33
do do do . . . . . 1882		252,821 33	2,978 66	41,158 90	17,116 46
do do do . . . . . 1883		396,496 96	1,859 68	45,554 91	18,199 59
do do do . . . . . 1884		188,266 18		48,624 51	19,683 24
do do do . . . . . 1885		111,215 23		49,004 85	20,199 78
do do do . . . . . 1886		210,509 42		50,969 10	19,199 18
do do do . . . . . 1887		28,772 52	12,981 59	53,113 97	22,567 81
do do do . . . . . 1888		19,414 34	7,996 38	52,229 61	19,999 64
do do do . . . . . 1889		76,032 96	972 71	54,110 67	22,957 71
do do do . . . . . 1890		7,448 03	8,238 46	53,114 34	22,999 38
do do do . . . . . 1891		217 53	16,155 75	50,721 69	36,292 98
do do do . . . . . 1892		87,852 35	27,480 80	52,729 37	67,499 62
do do do . . . . . 1893		445,983 21	50,937 40	53,185 00	51,616 79
do do do . . . . . 1894		64,345 14	15,856 74	60,174 03	40,939 70
do do do . . . . . 1895		189,944 36	32,405 20	56,337 44	25,891 45
Total . . . . .		9,940,974 01	227,105 68	1,102,700 80	660,684 73

## BEAUHARNOIS CANAL.

Government expenditure prior to Confederation . . . . .		1,611,424 11			
do since do . . . . . 1868			63,193 75	9,349 99	6,216 98
do do do . . . . . 1869			55 00	9,626 99	6,498 57
do do do . . . . . 1870			27 50	10,117 57	6,384 81
do do do . . . . . 1871				12,316 53	5,722 36
do do do . . . . . 1872			27 50	11,792 46	15,733 38
do do do . . . . . 1873			5,122 50	12,210 73	9,882 06
do do do . . . . . 1874			26 00	15,392 51	10,990 56
do do do . . . . . 1875			36 00	14,399 32	12,253 01
do do do . . . . . 1876				14,465 86	17,170 83
do do do . . . . . 1877				14,377 63	15,207 36
do do do . . . . . 1878				14,383 37	9,861 05
do do do . . . . . 1879				15,015 86	10,370 71
do do do . . . . . 1880		266 15		15,362 61	8,997 34
do do do . . . . . 1881				17,659 93	10,770 67
do do do . . . . . 1882				18,804 53	20,813 86
do do do . . . . . 1883			6,727 44	18,287 77	15,826 71
do do do . . . . . 1884			3,277 98	19,107 38	16,232 61
do do do . . . . . 1885			7,999 79	18,960 40	14,637 70
do do do . . . . . 1886			8,491 80	19,228 90	14,356 00
do do do . . . . . 1887			3,633 57	18,867 45	14,999 88
do do do . . . . . 1888			14,411 97	19,325 05	14,285 98
do do do . . . . . 1889			10,993 52	20,019 11	14,982 54
do do do . . . . . 1890				19,847 42	14,999 20
do do do . . . . . 1891			17,085 68	18,886 86	12,537 39
do do do . . . . . 1892			1,696 23	20,050 01	14,999 80
do do do . . . . . 1893				20,348 34	14,107 11
do do do . . . . . 1894			6,547 72	20,574 53	13,903 46
do do do . . . . . 1895			27,982 93	20,428 59	12,299 49
Total . . . . .		1,611,690 26	177,336 88	459,207 70	355,041 42



## Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*  
ST. LAWRENCE RIVER AND CANALS, SURVEYS, &c.

	Year end- ing 30th June.	Chargeable to Capital.	Chargeable to Income.
		\$ cts.	\$ cts.
Government expenditure prior to Confederation.....		18,442 85	98,378 46
do since do .....	1868		
do do do .....	1869		
do do do .....	1870		
do do do .....	1871		
do do do .....	1872		
do do do .....	1873	33,241 69	
do do do .....	1874	26,541 30	
do do do .....	1875	20,611 36	
do do do .....	1876	50,215 47	
do do do .....	1877	47,377 31	
do do do .....	1878	5,570 46	
do do do .....	1879	9,265 77	
do do do .....	1880	9,214 56	
do do do .....	1881	6,927 96	
do do do .....	1882	28,933 45	
do do do .....	1883	44,874 31	
do do do .....	1884	89,846 03	
do do do .....	1885	115,110 17	
do do do .....	1886	116,051 73	
do do do .....	1887	74,437 31	
do do do .....	1888	56,482 85	
do do do .....	1889	18,493 92	
do do do .....	1890	23,979 91	
do do do .....	1891	35,137 25	
do do do .....	1892	59,779 31	
do do do .....	1893	52,643 39	
do do do .....	1894	13,721 66	
do do do .....	1895	182,775 75	
Total .....		1,139,675 77	98,378 46

### LAKE ST. LOUIS.

Government expenditure prior to Confederation.....			
do since do .....	1868		
do do do .....	1869		
do do do .....	1870		
do do do .....	1871		
do do do .....	1872		
do do do .....	1873		
do do do .....	1874		
do do do .....	1875		
do do do .....	1876		
do do do .....	1877		
do do do .....	1878		
do do do .....	1879		
do do do .....	1880		
do do do .....	1881		
do do do .....	1882		
do do do .....	1883		
do do do .....	1884		
do do do .....	1885		
do do do .....	1886		
do do do .....	1887		
do do do .....	1888		
do do do .....	1889		
do do do .....	1890		
do do do .....	1891		
do do do .....	1892		
do do do .....	1893		
do do do .....	1894		
do do do .....	1895	4,753 14	
Total .....		4,753 14	

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

LEONARD SHANNON,  
*Accountant.*

## STATEMENTS showing the amounts expended on Construction, Renewals, &amp;c.—Con.

## CORNWALL CANAL.

		Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
			\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation			1,933,152 69			
do	since	do		2,786 00	11,244 47	3,774 18
do	do	do	10,692 04		10,347 91	3,859 14
do	do	do		17,780 05	10,368 16	7,145 42
do	do	do		7 50	11,848 39	8,891 61
do	do	do		10,000 21	10,594 30	8,163 70
do	do	do		1,011 75	13,042 25	12,467 65
do	do	do			13,405 20	7,610 70
do	do	do	1,780 00		13,351 91	7,097 34
do	do	do			13,320 61	6,423 67
do	do	do	49,211 37		13,375 70	6,440 54
do	do	do	145,015 45		13,825 50	4,935 21
do	do	do	143,092 05		13,817 96	4,983 15
do	do	do	109,454 95		14,440 33	9,735 76
do	do	do	53,948 14		15,173 60	5,524 10
do	do	do	44,587 61		15,052 20	6,634 62
do	do	do	21,728 93		18,283 67	8,361 71
do	do	do	23,018 13		18,475 48	9,007 73
do	do	do	62,034 90	16,298 96	15,988 96	12,368 51
do	do	do	57,820 83	6,960 95	15,994 80	11,832 83
do	do	do	46,966 43		17,520 54	12,100 29
do	do	do	67,945 74		16,938 54	13,942 64
do	do	do	163,9 3 85		17,890 55	58,205 26
do	do	do	365,038 01	2,000 00	17,063 49	12,758 18
do	do	do	599,001 85	1,459 98	16,077 72	9,830 05
do	do	do	398,555 25	2,345 26	15,596 66	9,864 36
do	do	do	352,536 13		15,173 01	9,668 14
do	do	do	404,990 22		15,344 02	7,733 54
do	do	do	450,689 65	21,497 74	15,414 56	13,053 55
Total			5,505,254 22	82,148 40	408,970 49	292,413 58

## WILLIAMSBURG CANALS.

Government expenditure prior to Confederation			1,320,655 54			
do	since	do			5,745 97	6,442 41
do	do	do			5,769 81	5,670 88
do	do	do			5,573 15	6,546 16
do	do	do			6,382 17	5,308 41
do	do	do		1,077 00	5,542 94	3,230 07
do	do	do			6,424 49	7,347 75
do	do	do			6,857 19	7,395 92
do	do	do			6,547 62	4,110 29
do	do	do			7,418 39	11,690 98
do	do	do			7,388 08	10,053 61
do	do	do			7,430 11	4,449 78
do	do	do			7,517 20	3,549 71
do	do	do			7,590 15	3,999 77
do	do	do			7,572 35	5,020 73
do	do	do			7,589 44	7,447 69
do	do	do	13 19		7,423 48	7,299 39
do	do	do	2,473 44		7,757 04	7,349 37
do	do	do	103,237 12		7,696 67	8,198 03
do	do	do	149,835 71		7,671 54	7,847 05
do	do	do	115,853 00		7,635 54	7,904 76
do	do	do	70,128 29	1,613 67	7,646 79	8,190 13
do	do	do	59,867 26		7,485 28	8,794 61
do	do	do	139,078 37		8,954 53	8,191 69
do	do	do	230,670 60		8,678 25	7,987 40
do	do	do	376,545 32	797 83	9,458 33	8,551 32
do	do	do	372,193 29	3,675 00	8,676 03	8,347 97
do	do	do	498,390 23		10,230 09	7,029 95
do	do	do	347,357 23	13,720 36	9,675 09	7,371 37
Total			3,786,298 59	20,883 86	210,337 70	195,327 20

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.LEONARD SHANNON,  
Accountant.

# Department of Railways and Canals

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*  
WELLAND CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Imperial Government .....		222,220 00			
Government expenditure prior to Confederation .....		7,416,019 83			
do since do ..	1868	12,097 84		37,679 05	38,852 96
do do do ..	1869	43,486 36		39,060 61	50,773 03
do do do ..	1870		22,173 72	40,340 45	65,009 19
do do do ..	1871		48,569 10	42,383 33	53,381 02
do do do ..	1872	53,680 32	6,022 44	37,085 37	50,276 90
do do do ..	1873	82,282 20	47,876 27	45,382 99	66,550 73
do do do ..	1874	746,420 61		50,966 48	103,666 99
do do do ..	1875	1,047,119 91		52,595 00	88,539 99
do do do ..	1876	1,569,478 19	700 00	57,623 31	81,376 12
do do do ..	1877	2,199,962 61		59,963 47	49,783 93
do do do ..	1878	2,138,392 99		60,138 59	66,393 53
do do do ..	1879	1,552,697 41		59,942 23	56,755 57
do do do ..	1880	1,252,924 75		63,198 10	76,535 25
do do do ..	1881	1,242,943 37	6,593 19	56,398 04	69,249 53
do do do ..	1882	603,402 17	13,664 80	74,641 51	84,374 97
do do do ..	1883	549,433 29	5,979 03	109,207 21	72,707 62
do do do ..	1884	432,336 21		113,276 87	90,926 97
do do do ..	1885	463,505 38	6,150 21	112,670 00	91,534 65
do do do ..	1886	215,380 75	1,359 00	111,660 22	69,507 48
do do do ..	1887	1,071,073 87	3,828 67	109,371 69	77,440 80
do do do ..	1888	429,720 94	10,740 86	110,806 01	86,318 97
do do do ..	1889	225,910 21	43,803 80	113,587 05	77,547 77
do do do ..	1890	117,633 22	51,648 28	109,202 02	72,686 19
do do do ..	1891	36,371 03	19,767 73	107,662 63	82,548 30
do do do ..	1892	29,541 21	9,008 80	104,673 73	73,771 87
do do do ..	1893	8,259 94	25,103 13	104,926 73	65,016 84
do do do ..	1894	1,571 78	13,430 20	102,018 80	53,053 71
do do do ..	1895	3,809 35	24,245 02	90,438 07	48,270 94
<b>Total .....</b>		<b>23,767,675 74</b>	<b>360,664 25</b>	<b>2,176,899 56</b>	<b>1,963,051 83</b>

## STE. ANNE'S LOCK AND CANAL.

Government expenditure prior to Confederation .....		134,456 51			
do since do ..	1868			778 16	432 47
do do do ..	1869			1,062 96	1,873 51
do do do ..	1870			1,136 54	1,280 36
do do do ..	1871			1,285 84	1,539 02
do do do ..	1872		1,939 46	1,106 80	1,393 63
do do do ..	1873		540 11	2,199 64	1,264 40
do do do ..	1874	12,753 27		2,614 90	7,208 63
do do do ..	1875	32,627 71		1,859 20	4,506 68
do do do ..	1876	24,935 85		1,952 14	4,033 72
do do do ..	1877	30,003 08		1,982 65	1,756 93
do do do ..	1878	14,618 85		2,057 32	541 95
do do do ..	1879	22,113 02		2,202 03	3,259 70
do do do ..	1880	3,054 68		2,152 57	1,704 71
do do do ..	1881	69,042 76		2,553 02	3,257 92
do do do ..	1882	193,158 36		2,611 30	2,343 99
do do do ..	1883	172,959 95		2,569 86	3,448 83
do do do ..	1884	142,006 25		2,775 32	2,725 49
do do do ..	1885	93,679 57		2,618 60	4,042 04
do do do ..	1886	129,681 67		2,611 90	5,803 01
do do do ..	1887	45,276 08	6,054 10	2,537 41	1,499 96
do do do ..	1888	18,910 55	1,372 59	2,505 61	1,380 75
do do do ..	1889	24,786 33		2,569 22	1,750 79
do do do ..	1890	6,151 14		2,571 04	1,525 51
do do do ..	1891		8,173 69	2,505 69	1,503 56
do do do ..	1892		25,471 61	2,571 28	1,666 21
do do do ..	1893		6,521 88	2,581 08	2,890 03
do do do ..	1894		3,497 56	2,640 00	2,799 63
do do do ..	1895		3,694 33	2,508 14	3,025 91
<b>Total .....</b>		<b>1,170,215 63</b>	<b>57,265 33</b>	<b>61,120 22</b>	<b>70,349 34</b>

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

LEONARD SHANNON,  
*Accountant.*

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

## CARILLON AND GRENVILLE CANALS.

				Year end- ing 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
					\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation					63,053 64			
do	since	do	1868			19,817 22	6,301 88	8,911 28
do	do	do	1869				6,549 38	10,157 42
do	do	do	1870			4,167 96	6,617 81	9,852 09
do	do	do	1871			23,119 37	8,676 90	8,218 24
do	do	do	1872	165,257 28			8,324 51	17,235 31
do	do	do	1873	133,199 10		3,051 38	10,068 28	8,781 50
do	do	do	1874	245,258 38			10,710 88	10,605 82
do	do	do	1875	330,864 76			10,378 57	18,520 44
do	do	do	1876	326,203 16			10,764 38	11,475 96
do	do	do	1877	245,738 04			11,050 27	10,304 06
do	do	do	1878	22,676 20			11,401 30	5,082 72
do	do	do	1879	243,141 24			11,501 22	7,629 98
do	do	do	1880	281,514 27			11,959 14	7,625 54
do	do	do	1881	336,707 53			13,059 18	8,076 91
do	do	do	1882	433,084 39			14,387 49	7,582 68
do	do	do	1883	433,575 10			17,479 58	8,310 02
do	do	do	1884	399,267 16			17,393 91	7,918 42
do	do	do	1885	157,187 72			19,702 30	10,429 26
do	do	do	1886	104,973 24		75 00	20,597 82	9,303 31
do	do	do	1887	20,747 11			20,011 36	10,554 41
do	do	do	1888	38,996 29			21,531 12	10,036 C2
do	do	do	1889	298 17			22,098 88	10,135 66
do	do	do	1890	17 58		4,526 61	15,896 16	7,582 38
do	do	do	1891			4,395 25	21,230 22	10,796 68
do	do	do	1892	34,585 64		15,036 48	17,458 69	8,620 15
do	do	do	1893	207 00		42,298 74	16,762 71	10,669 28
do	do	do	1894	385 55		20,034 94	14,144 98	11,620 09
do	do	do	1895			5,963 76	15,453 21	12,303 25
Total					4,025,938 55	142,486 71	391,512 13	278,339 48

## CULBUTE LOCK AND DAM.

Government expenditure since Confederation.				1868				
do	do	do	1869					
do	do	do	1870					
do	do	do	1871					
do	do	do	1872					
do	do	do	1873					
do	do	do	1874			835 53		
do	do	do	1875	63,659 29		38,388 99		
do	do	do	1876	76,842 44				
do	do	do	1877	56,081 87				
do	do	do	1878	5,933 53				
do	do	do	1879	20,694 19				
do	do	do	1880	16,688 20			202 50	259 31
do	do	do	1881	4,721 62			962 85	
do	do	do	1882	29,567 15			790 00	162 33
do	do	do	1883	14,249 60			695 00	288 99
do	do	do	1884	8,151 16			733 50	
do	do	do	1885	19,071 76			730 00	572 75
do	do	do	1886	26,385 27			730 00	2,396 14
do	do	do	1887	7,760 88			730 00	967 33
do	do	do	1888	7,573 99			739 50	730 60
do	do	do	1889	17,112 01			1,050 00	116 53
do	do	do	1890	2,818 35			747 83	
do	do	do	1891	2,183 15		9,122 05	745 25	499 91
do	do	do	1892			1,546 25	736 00	
do	do	do	1893			1,420 65	749 00	13 55
do	do	do	1894			2,540 14	730 00	494 43
do	do	do	1895			1,475 26	436 05	434 28
Total					379,494 46	55,328 87	11,507 48	6,936 15

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.LEONARD SHANNON,  
*Accountant.*

## Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*  
RIDEAU CANAL.

			Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.
Imperial Government				3,911,701 47			
Government expenditure prior to Confederation				153,062 60			
do	since	do	1868		7,298 12	18,397 28	16,475 21
do	do	do	1869			19,250 71	13,140 77
do	do	do	1870		13 16	20,022 37	19,469 33
do	do	do	1871		11,732 98	22,814 58	18,120 52
do	do	do	1872		4,967 50	22,139 48	14,005 32
do	do	do	1873		18,070 97	22,841 51	26,074 49
do	do	do	1874		5,793 16	26,815 44	22,957 40
do	do	do	1875	9,310 85		26,553 37	19,699 81
do	do	do	1876	2,163 96		26,430 77	14,428 25
do	do	do	1877	214 11		25,959 56	14,198 18
do	do	do	1878			26,651 51	11,034 22
do	do	do	1879	7,703 88		26,042 52	7,134 55
do	do	do	1880			26,463 88	11,434 05
do	do	do	1881		133 50	26,024 71	8,627 00
do	do	do	1882			26,915 29	13,860 28
do	do	do	1883		70 65	27,322 81	23,524 84
do	do	do	1884		4,597 50	26,938 95	19,245 02
do	do	do	1885		2,098 76	26,971 32	18,189 55
do	do	do	1886		550 00	27,045 95	35,648 04
do	do	do	1887		20,823 96	29,440 46	13,565 34
do	do	do	1888		18,889 48	33,458 83	25,478 87
do	do	do	1889		6,665 22	33,801 77	18,106 36
do	do	do	1890		21,124 10	34,270 57	18,025 21
do	do	do	1891		20,967 25	34,641 98	21,537 56
do	do	do	1892		31,363 23	35,500 82	21,507 16
do	do	do	1893		24,274 71	35,022 49	18,789 50
do	do	do	1894		14,485 11	34,943 35	16,939 47
do	do	do	1895		31,559 48	33,827 08	19,897 32
Total				4,084,156 87	245,478 84	776,509 36	506,113 62

### ST. OURS LOCK.

Government expenditure prior to Confederation				121,537 65			
do	since	do	1868			1,532 75	753 74
do	do	do	1869			1,755 15	1,399 18
do	do	do	1870			1,458 09	1,006 22
do	do	do	1871			1,414 48	1,210 98
do	do	do	1872			1,565 80	1,263 19
do	do	do	1873			2,076 50	1,575 10
do	do	do	1874			2,219 13	2,363 42
do	do	do	1875			1,362 22	1,245 69
do	do	do	1876			1,403 92	1,601 71
do	do	do	1877			1,533 40	750 80
do	do	do	1878			1,556 65	283 77
do	do	do	1879			1,581 55	456 07
do	do	do	1880			1,614 01	705 54
do	do	do	1881			1,741 97	1,299 77
do	do	do	1882			2,002 71	1,902 41
do	do	do	1883		17,230 32	2,361 65	2,188 08
do	do	do	1884		5,279 17	2,315 37	1,494 99
do	do	do	1885		4,700 64	2,271 57	3,652 63
do	do	do	1886			2,311 70	4,143 47
do	do	do	1887			2,175 37	5,864 78
do	do	do	1888			2,216 04	2,801 17
do	do	do	1889		17,964 45	2,421 14	2,002 63
do	do	do	1890		24,571 96	2,138 40	1,935 44
do	do	do	1891		21,696 74	2,011 08	4,460 16
do	do	do	1892		3,585 34	2,168 44	1,944 33
do	do	do	1893			2,136 66	1,994 34
do	do	do	1894			2,216 68	924 55
do	do	do	1895			2,161 63	915 50
Total				121,537 65	95,028 62	53,724 06	52,139 66

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

LEONARD SHANNON,  
*Accountant.*

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

CHAMBLY CANAL.

				Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
					\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation					634,711 76			
do	since	do	1868				8,312 90	9,355 70
do	do	do	1869				8,437 22	13,120 97
do	do	do	1870				8,934 41	20,180 73
do	do	do	1871			2,839 85	10,214 71	22,426 33
do	do	do	1872			1,906 40	9,628 50	22,327 99
do	do	do	1873			759 00	10,390 44	11,789 27
do	do	do	1874			2,810 00	11,675 67	16,427 19
do	do	do	1875		2,415 00		12,201 99	16,306 91
do	do	do	1876				10,593 14	13,273 56
do	do	do	1877		80 00		10,281 78	10,111 32
do	do	do	1878				10,413 99	6,022 96
do	do	do	1879				11,301 53	8,809 77
do	do	do	1880				11,516 22	12,377 74
do	do	do	1881				13,950 47	20,705 17
do	do	do	1882			31,796 41	16,686 78	16,843 60
do	do	do	1883			21,332 36	15,904 38	15,182 24
do	do	do	1884			41,640 77	18,448 85	12,003 34
do	do	do	1885			21,049 23	18,378 55	13,046 95
do	do	do	1886			14,547 27	19,501 28	11,999 77
do	do	do	1887			17,911 17	19,053 62	20,071 37
do	do	do	1888			65,536 64	20,073 60	11,823 74
do	do	do	1889			51,437 87	19,679 22	19,392 18
do	do	do	1890			23,221 48	19,655 38	14,399 93
do	do	do	1891			43,344 41	19,204 76	11,309 93
do	do	do	1892			38,353 99	19,665 22	12,976 48
do	do	do	1893			21,127 65	19,310 29	12,451 03
do	do	do	1894			8,567 78	19,040 93	11,920 74
do	do	do	1895			6,147 63	19,325 49	11,779 12
Total					637,206 76	414,329 91	411,781 32	398,526 03

MURRAY CANAL.

Government expenditure prior to Confederation						400 00		
do	since	do	1868					
do	do	do	1869					
do	do	do	1870					
do	do	do	1871					
do	do	do	1872					
do	do	do	1873					
do	do	do	1874					
do	do	do	1875					
do	do	do	1876					
do	do	do	1877					
do	do	do	1878					
do	do	do	1879					
do	do	do	1880					
do	do	do	1881					
do	do	do	1882		7,135 63			
do	do	do	1883		84,071 68			
do	do	do	1884		118,187 43			
do	do	do	1885		148,902 66			
do	do	do	1886		179,704 52			
do	do	do	1887		142,563 66			
do	do	do	1888		146,754 37			
do	do	do	1889		215,326 46			
do	do	do	1890		106,760 35		494 31	
do	do	do	1891		61,260 49		5,137 03	173 53
do	do	do	1892		5,964 22		5,803 48	3,505 15
do	do	do	1893		30,838 79		5,499 62	5,341 34
do	do	do	1894				5,667 52	5,295 57
do	do	do	1895				5,354 97	5,063 49
Total					1,247,470 26	400 00	27,956 93	19,379 08

## Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

### TRENT CANAL.

	Year end- ing 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation	1868	309,371 31			
do since do	1868				
do do do	1869				
do do do	1870				
do do do	1871				
do do do	1872				
do do do	1873				
do do do	1874				
do do do	1875				
do do do	1876				
do do do	1877				
do do do	1878				
do do do	1879				
do do do	1880	561 50		1,188 92	3,568 89
do do do	1881			2,489 93	2,233 50
do do do	1882		5,836 51	2,011 92	8,115 50
do do do	1883	40,767 16	9,303 66	2,235 50	3,047 42
do do do	1884	120,393 91	6,198 57	2,208 64	5,264 35
do do do	1885	121,382 84		3,303 87	4,653 50
do do do	1886	75,103 30		1,639 75	5,917 88
do do do	1887	179,541 63		1,938 08	6,008 88
do do do	1888	114,879 35		1,770 29	5,151 42
do do do	1889	47,592 13	29,677 92	3,242 05	5,935 94
do do do	1890	58,644 50	11,522 65	3,450 99	730 55
do do do	1891	9,826 49	3,164 81	3,803 66	4,888 98
do do do	1892	4,457 28	6,506 97	3,695 85	4,721 85
do do do	1893	5,962 47	10,838 90	3,739 86	2,087 17
do do do	1894	3,412 32	20,403 93	3,785 47	4,988 59
do do do	1895	53,907 70	21,143 41	4,184 18	3,374 49
Total.....		1,145,803 89	124,597 33	44,688 96	70,688 91

### TAY CANAL.

Government expenditure since Confederation	1868				
do do do	1869				
do do do	1870				
do do do	1871				
do do do	1872				
do do do	1873				
do do do	1874				
do do do	1875				
do do do	1876				
do do do	1877				
do do do	1878				
do do do	1879				
do do do	1880				
do do do	1881				
do do do	1882		748 65		
do do do	1883	4,831 80			
do do do	1884	50,878 12			
do do do	1885	92,473 97			
do do do	1886	65,561 51			
do do do	1887	49,617 92			
do do do	1888	54,166 57			
do do do	1889	89,486 18			
do do do	1890	22,226 23		*	*
do do do	1891	17,114 78		*	*
do do do	1892	29,771 65		*	*
do do do	1893			*	*
do do do	1894			*	*
do do do	1895			*	*
Total.....		476,128 73	748 65		

\* Included in Rideau Canal.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

LEONARD SHANNON,  
Accountant.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

SAULT STE. MARIE CANAL.

				Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
					\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure since Confederation.				1868				
do	do	do		1869				
do	do	do		1870				
do	do	do		1871				
do	do	do		1872		949 35		
do	do	do		1873				
do	do	do		1874				
do	do	do		1875				
do	do	do		1876				
do	do	do		1877				
do	do	do		1878				
do	do	do		1879				
do	do	do		1880				
do	do	do		1881				
do	do	do		1882				
do	do	do		1883				
do	do	do		1884				
do	do	do		1885				
do	do	do		1886				
do	do	do		1887				
do	do	do		1888	8,145 06			
do	do	do		1889	34,018 95			
do	do	do		1890	176,568 55			
do	do	do		1891	325,336 33			
do	do	do		1892	341,474 31			
do	do	do		1893	589,801 25			
do	do	do		1894	1,316,529 29			
do	do	do		1895	466,151 50		3,432 73	
Total					3,258,025 24	949 35	3,432 73	

SOULANGES CANAL.

Government expenditure prior to Confederation				1868				
do	since	do		1869				
do	do	do		1870				
do	do	do		1871				
do	do	do		1872				
do	do	do		1873				
do	do	do		1874				
do	do	do		1875				
do	do	do		1876				
do	do	do		1877				
do	do	do		1878				
do	do	do		1879				
do	do	do		1880				
do	do	do		1881				
do	do	do		1882				
do	do	do		1883				
do	do	do		1884				
do	do	do		1885				
do	do	do		1886				
do	do	do		1887				
do	do	do		1888				
do	do	do		1889				
do	do	do		1890				
do	do	do		1891				
do	do	do		1892	54,235 76			
do	do	do		1893	210,336 24			
do	do	do		1894	723,380 95			
do	do	do		1895	752,016 53			
Total					1,739,969 48			



# Department of Railways and Canals

## RECAPITULATION—EXPENDITURE on Canals, also showing Revenue received.

	Year ending 30th June	Capital.	Income.	Staff.	Repairs.	Revenue received.
		\$	cts.	\$	cts.	\$
						cts.
Government expenditure prior to Confederation, including Imperial Government	1868	20,593,806	98,378	113,084	101,646	403,879
Government expenditure since Confederation	1869	33,617	56	116,969	118,579	400,263
do	1870	126,898	20	120,403	150,176	414,687
do	1871		90,855	135,040	140,467	488,538
do	1872	255,645	75	124,137	152,086	466,847
do	1873	256,547	27	148,581	186,573	486,483
do	1874	1,189,591	91	167,194	213,613	510,755
do	1875	1,714,830	37	168,401	203,226	414,979
do	1876	2,368,733	46	178,411	190,578	390,387
do	1877	4,131,374	30	179,661	138,448	390,857
do	1878	3,843,338	62	187,521	122,251	373,814
do	1879	3,064,098	61	191,892	115,349	337,675
do	1880	2,123,366	34	195,039	147,167	341,598
do	1881	2,073,891	65	197,573	154,653	361,538
do	1882	1,593,174	09	224,572	187,399	325,231
do	1883	1,703,001	97	269,415	178,617	361,694
do	1884	1,577,295	42	280,657	192,219	321,289
do	1885	1,504,621	47	280,226	201,708	321,289
do	1886	1,333,324	80	282,323	198,251	328,977
do	1887	1,783,698	16	283,172	198,888	321,784
do	1888	1,033,118	34	292,458	201,928	317,902
do	1889	972,918	43	292,458	240,261	333,188
do	1890	1,026,364	24	301,040	240,900	354,816
do	1891	1,318,092	15	290,516	176,089	349,431
do	1892	1,437,149	30	294,562	204,768	324,475
do	1893	2,069,573	30	293,115	231,089	324,475
do	1894	3,027,164	19	291,588	204,739	337,089
do	1895	2,452,273	65	294,446	179,630	387,788
do				281,477	164,033	339,890
Total		64,689,569	68	6,184,584	4,894,465	10,578,258

LEONARD SHANNON,  
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

CANALS,

DR.

COLLECTORS of Canal Tolls

Balance due by Collectors, 1st July, 1894.	CANAL REVENUE.				Total Canal Revenue accrued.	Hydraulic Rents, &c.	Total.
	Tolls.	Wharfage and Storage.	Fines.	Other Receipts.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
0 01	100,039 22		95 00	14 00	100,148 22	306 68	100,454 90
	53,635 84		20 00		53,655 85	197 26	53,853 11
	356 75				356 75	506 67	863 42
	35 70				35 70		35 70
	216 80				216 80	915 00	1,131 80
	445 59				445 49	5,038 26	5,483 75
	22 60				22 60	5 00	27 60
0 01	154,752 40		115 00	14 00	154,881 41.	6,968 87	161,850 28
	1,462 28	30 00	70 00		1,562 28	2,716 00	4,278 28
	26,683 00		10 00		26,693 00	1,395 00	28,088 00
	825 47		45 00		870 47	560 00	1,430 47
	2,794 89	16 35		1,009 41	3,820 65		3,820 65
	21,840 13	2,391 58		13,948 25	38,179 96	27,950 03	66,129 99
	8,859 58				8,859 58		8,859 58
	62,465 35	2,437 93	125 00	14,957 66	79,985 94	32,621 03	112,606 97
	9,457 69				9,457 69		9,457 69
	11,439 57		5 00		11,444 57	100 00	11,544 57
	599 35				599 35		599 35
	21,496 61		5 00		21,501 61	100 00	21,601 61
	19,252 05				19,252 05		19,252 05
	13,243 87			8 00	13,251 87	13 00	13,264 87
	186 57		12 00		198 57	23 00	221 57
	1,145 70			0 65	1,146 35		1,146 35
	33,828 19		12 00	8 65	33,848 84	36 00	33,884 84
	3,724 21	69 02		310 00	4,103 23	639 50	4,742 73
	1,479 82				1,479 82	105 00	1,584 82
	629 67				629 67	84 50	714 17
	5,833 70	69 02		310 00	6,212 72	829 00	7,041 72
	2,072 42				2,072 42		2,072 42
	2,072 42				2,072 42		2,072 42
	699 95				699 95		699 95
	699 95				699 95		699 95

# Department of Railways and Canals.

1894-95.

in Account with Revenue.

Cr.

COLLECTION DIVISIONS.	DEPOSITED TO THE CREDIT OF THE RECEIVER GENERAL.		Balance.	Total.	Memo- randum of Expenses and Repairs.
	On account of Canal Revenue.	On account of Hydraulic Rents, &c.			
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Welland Canal.</i>					142,188 54
Port Colborne.....	100,148 22	306 68		100,454 90	3,711 31
Port Dalhousie.....	53,655 85	197 26		53,853 11	2,272 59
Dunnville.....	356 75	506 67		863 42	783 00
Port Maitland.....	35 70			35 70	631 00
Port Robinson.....	216 80	915 00		1,131 80	772 18
St. Catharines.....	445 49	5,038 26		5,483 75	185 67
Chippawa.....	22 60	5 00		27 60	130 00
Totals.....	154,881 41	6,968 87		161,850 28	150,674 29
<i>St. Lawrence Canals.</i>					166,960 54
Beauharnois.....	1,562 28	2,716 00		4,278 28	1,540 68
Cornwall.....	26,693 00	1,395 00		28,088 00	2,090 77
Cardinal.....	870 47	560 00		1,430 47	1,325 01
Lachine.....	3,820 65			3,820 65	2,235 43
Montreal.....	38,179 96	27,950 03		66,129 99	8,815 64
Kingston.....	8,859 58			8,859 58	1,205 63
Totals.....	79,985 94	32,621 03		112,606 97	184,173 70
<i>Chambly Canal.</i>					34,181 74
Chambly.....	9,457 69			9,457 69	1,591 23
St. Johns.....	11,443 80	100 00	0 77	11,544 57	1,699 89
St. Ours.....	599 35			599 35	616 20
Totals.....	21,500 84	100 00	0 77	21,601 61	38,089 06
<i>Ottawa Canals.</i>					33,290 51
Ottawa.....	19,252 05			19,252 05	
Grenville.....	13,251 87	13 00		13,264 87	1,150 83
Carillon.....	198 57	23 00		221 57	840 17
St. Ann's Lock.....	1,146 35			1,146 35	842 12
Totals.....	33,848 84	36 00		33,884 84	36,123 63
<i>Rideau Canal.</i>					54,664 00
Ottawa.....	4,103 23	639 50		4,742 73	2,418 66
Kingston Mills.....	1,479 82	105 06		1,584 82	460 16
Smith's Falls.....	629 67	84 50		714 17	345 40
Totals.....	6,212 72	829 00		7,041 72	57,888 22
<i>St. Peter's Canal.</i>					2,853 36
.....	2,072 42			2,072 42	238 23
Totals.....	2,072 42			2,072 42	3,091 59
<i>Murray Canal.</i>					10,627 38
Brighton.....	699 95			699 95	311 02
Totals.....	699 95			699 95	10,938 40

CANALS,

DR.

COLLECTORS of Canal Tolls

Balance due by Collectors, 1st July, 1894.	CANAL REVENUE.				Total Canal Revenue accrued.	Hydraulic Rents, &c.	Total.
	Tolls.	Wharfage and Storage.	Fines.	Other Receipts.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	68 19			0 25	68 44		68 44
	425 78			93 00	518 78		518 78
	46 02				46 02	50 00	96 02
	28 05				28 05		28 05
	285 23				285 23	2 00	287 23
	105 27				105 27		105 27
	958 54			93 25	1,051 79	52 00	1,103 79
0 01	282,107 16	2,506 95	257 00	15,383 56	300,254 68	40,606 90	340,861 58
					971 09		971 09
					299,283 59		339,890 49

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, 1st November, 1895.

# Department of Railways and Canals.

1894-95—*Concluded.*

in Account with Revenue.

CR.

COLLECTION DIVISIONS.	DEPOSITED TO THE CREDIT OF THE RECEIVER GENERAL.		Balance.	Total.	Memo- randum of Expenses and Repairs.
	On account of Canal Revenue.	On account of Hydraulic Rents, &c.			
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Trent Valley Canal</i> .....					7,558 67
Burleigh.....	68 44			68 44	1 44
Bobcaygeon.....	518 78			518 78	45 09
Fenelon Falls.....	46 02	50 00		96 02	.....
Hastings.....	28 05			28 05	22 62
Peterboro'.....	285 23	2 00		287 23	3 75
Buckhorn.....	105 27			105 27	.....
Totals.....	1,051 79	52 00		1,103 79	7,631 57
Sault Ste. Marie.....					3,432 73
Culbute.....					870 33
Dredge vessels.....					8,566 50
Inspection.....					2,562 09
Department of Public Printing and Stationery.....					689 93
General.....					1,547 37
	300,253 91	40,606 90	00 77	340,861 58	506,280 31
Less Refunds.....	971 09			971 09	
Net Revenue.....	299,282 82			339,890 49	

LEONARD SHANNON,  
*Accountant.*

HYDRAULIC AND OTHER RENTS.

No. 2.—SUMMARY Statement of Lessees' Accounts—1894-95.

Dr.

Cr.

Balance due 1st July, 1894.	Accrued during the year ended 30th June, 1895.	Total.	NAME OF WORK.	Abatement.	Paid into hands of Collector.	Balance.	Total.
\$ cts.	\$ cts.	\$ cts.			\$ cts.	\$ cts.	\$ cts.
28,681 43	7,824 55	36,505 98	Welland Canal		6,898 43	29,607 55	36,505 98
2,945 62	979 00	3,924 62	Williamsburg Canal		560 00	3,364 62	3,924 62
1,702 50	4,265 00	5,967 50	Cornwall		1,395 00	4,572 50	5,967 50
8,171 50	2,437 00	10,608 50	Beauharnois		2,716 00	7,892 50	10,608 50
27,854 98	24,556 75	52,411 73	Lachine	1,590 90	27,948 03	22,872 80	52,411 73
27,276 84	145 60	421 84	Chambly		100 00	321 84	421 84
4,750 04	1,016 20	5,766 24	Ridesau		829 00	4,937 24	5,766 24
80 00	90 00	170 00	Sundry		90 00	80 00	170 00
354 18		354 18	Land sales, Intercolonial Railway			354 18	354 18
74,817 09	41,253 50	116,070 59	Totals	1,590 90	40,536 46	73,943 23	116,070 59

LEONARD SHANNON,  
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

## Department of Railways and Canals.

### STATEMENT SHOWING REFUNDS CANAL TOLLS PAID DURING THE YEAR 1894-95.

Date.	To whom paid.	Refunds of Tolls on	Canals.	Amount.	Total.
				\$    cts.	\$    cts.
1894					
Sept. 26	Lomes, Higginson & Co.....	Overpaid on coal.....	Lachine.....	16 64	
do 29	John Heney.....	Wood.....	Rideau.....	445 27	16 64
Nov. 7	M. Garrant.....	Coal.....	Chambly..	1 35	445 27
do 7	Montreal Transportation Co.....	Cement.....	St. Lawrence Canals.....	53 21	1 35
Dec. 14	do do do .....	do .....	do .....	38 70	
do 14	J. B. Fairgrieve .....	do .....	do .....	64 35	
1895					
Jan. 18	Montreal Transportation Co.....	do .....	do .....	8 70	
do 18	Poupore & Fraser.....	do .....	do .....	23 51	
Feb. 5	R. O. & A. B. Mackay .....	Iron and cement.....	do .....	67 28	
do 13	Kingston and Montreal Forward- ing Company.....	Corn .....	do .....	125 02	
do 1	R. O. & A. B. Mackay.....	Castings and cement.....	do .....	30 55	411 32
1894					
Dec. 14	J. & T. Conlon .....	Cement.....	Welland ...	95 91	
1895					
Feb. 15	R. O. & A. B. Mackay.....	Castings and cement....	do .....	0 60	96 51
					971 09

LEONARD SHANNON,

*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

## INTERCOLONIAL RAILWAY.

(Including amounts paid to Nova Scotia Railway and European and North American Railway, N.B.)

	Year.	Construction.	Working Expenses including Windsor Branch Railway.		Revenue received, including Windsor Branch Railway.	
			\$	cts.	\$	cts.
Expenditure prior to Confederation .....		10,766,725 54				
do since do .....	1868	483,353 65	359,961 08		420,752 58	
do do do .....	1869	282,615 18	387,548 47		455,022 76	
do do do .....	1870	1,729,381 49	445,208 75		471,245 09	
do do do .....	1871	2,916,782 13	442,993 31		565,713 52	
do do do .....	1872	5,131,141 51	595,076 22		622,900 56	
do do do .....	1873	5,201,450 37	1,011,892 60		703,458 26	
do do do .....	1874	3,614,898 81	1,847,175 24		893,430 17	
do do do .....	1875	3,426,099 55	1,532,589 62		861,593 43	
do do do .....	1876	1,108,321 59	1,277,197 79		848,861 46	
do do do .....	1877	1,318,352 19	1,061,673 55		1,154,445 35	
do do do .....	1878	408,816 74	1,811,273 56		1,378,946 78	
do do do .....	1879	226,639 19	2,010,188 22		1,294,099 69	
do do do .....	1880	2,048,014 60	1,607,956 70		1,520,310 45	
do do do .....	1881	608,732 80	1,780,353 53		1,777,856 76	
do do do .....	1882	585,568 79	2,080,592 37		2,100,315 85	
do do do .....	1883	1,616,632 96	2,383,477 20		2,395,034 99	
do do do .....	1884	1,405,377 52	2,366,719 95		2,376,666 19	
do do do .....	1885	1,195,303 08	2,460,229 87		2,392,605 00	
do do do .....	1886	544,958 17	2,508,473 10		2,406,858 88	
do do do .....	1887	823,070 86	2,854,158 91		2,621,337 41	
do do do .....	1888	742,203 09	3,300,481 94		2,937,337 40	
do do do .....	1889	655,228 13	3,174,785 19		2,923,736 46	
do do do .....	1890	365,246 48	3,500,455 80		2,958,243 38	
do do do .....	1891	79,929 34	3,691,273 65		3,007,630 51	
do do do .....	1892	168,101 77	3,458,891 39		2,978,950 82	
do do do .....	1893	228,984 79	3,062,207 45		3,099,815 20	
do do do .....	1894	166,362 43	2,999,317 07		3,020,485 74	
do do do .....	1895	327,034 51	2,964,940 98		2,979,795 59	
Total .....		*48,175,387 26	57,577,088 51		51,167,450 28	

\* Including \$296,872.90 charged to "Consolidated Fund."

Total cost of construction as above ..... \$48,175,387 26

Less amounts transferred from Capital to Consolidated Fund as follows:—

	Nova Scotia Ry.	European and North American Ry.	
1868 .....	\$ 16,800 99	\$ 11,302 89	
1870 .....	34,403 45	1,749 21	
1871 .....	50,405 69		
1873 .....	106,899 59	75,311 08	
	<u>\$ 208,509 72</u>	<u>\$ 83,363 18</u>	
		208,509 72	
			\$ 296,872 90

Agreeing with balance sheet, Public Accounts, 1894-95 ..... \$47,878,514 36

Intercolonial Railway .....	\$47,878,514 36
Cape Breton Railway .....	3,859,884 54
Oxford and New Glasgow Railway .....	1,945,497 69
Eastern Extension Railway .....	1,324,042 81

Total Capital cost of Intercolonial Railway system ..... \$55,007,939 40

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.LEONARD SHANNON,  
Accountant.



# Department of Railways and Canals.

## EASTERN EXTENSION RAILWAY.

	Year.	Capital.	Working Expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation.....	1868			
do since do .....	1869			
do do do .....	1870			
do do do .....	1871			
do do do .....	1872			
do do do .....	1873			
do do do .....	1874			
do do do .....	1875			
do do do .....	1876			
do do do .....	1877			
do do do .....	1878			
do do do .....	1879			
do do do .....	1880			
do do do .....	1881			
do do do .....	1882			
do do do .....	1883			
do do do .....	1884	1,284,311 97	10,033 77	30,767 66
do do do .....	1885	2,055 92	78,273 65	73,050 01
do do do .....	1886	183 79	94,756 06	66,893 11
do do do .....	1887		94,254 04	64,107 10
do do do .....	1888		90,954 73	70,552 20
do do do .....	1889	34,235 73	90,719 04	72,436 65
do do do .....	1890		79,102 77	84,658 95
do do do .....	1891	3,255 40	*	†
do do do .....	1892		*	†
do do do .....	1893		*	†
do do do .....	1894		*	†
do do do .....	1895		*	†
<b>Total.....</b>		<b>1,324,042 81</b>	<b>538,094 06</b>	<b>462,465 68</b>

\* Included in Intercolonial Railway working expenses. † Included in Intercolonial Railway revenue.

## CARLETON BRANCH RAILWAY.

Government expenditure prior to Confederation.....	1868			
do since do .....	1869			
do do do .....	1870			
do do do .....	1871			
do do do .....	1872			
do do do .....	1873			
do do do .....	1874			
do do do .....	1875			
do do do .....	1876			
do do do .....	1877			
do do do .....	1878			
do do do .....	1879			
do do do .....	1880			
do do do .....	1881			
do do do .....	1882			
do do do .....	1883			
do do do .....	1884			
do do do .....	1885			
do do do .....	1886	85,610 69		
do do do .....	1887	2,299 62		
do do do .....	1888	500 17		
do do do .....	1889			
do do do .....	1890			
do do do .....	1891			
do do do .....	1892			
do do do .....	1893			
<b>Total.....</b>		<b>*88,410 48</b>		

\* 56 Victoria, cap. 6, transferred the Carleton Branch Railway to the city of St. John, N.B., for the sum of \$40,000 which sum was paid in March, 1893, to the Receiver General.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

LEONARD SHANNON,  
Accountant.

CAPE BRETON RAILWAY.

	Year.	Capital.		Working Expenses.	
		§	cts.	§	cts.
Government expenditure prior to Confederation.....	1868				
do since do .....	1869				
do do do .....	1870				
do do do .....	1871				
do do do .....	1872				
do do do .....	1873				
do do do .....	1874				
do do do .....	1875				
do do do .....	1876				
do do do .....	1877				
do do do .....	1878				
do do do .....	1879				
do do do .....	1880				
do do do .....	1881				
do do do .....	1882				
do do do .....	1883				
do do do .....	1884				
do do do .....	1885				
do do do .....	1886				
do do do .....	1887		76,501 89		
do do do .....	1888		689,450 50		
do do do .....	1889		1,083,276 60		
do do do .....	1890		1,170,523 62		
do do do .....	1891		521,441 62		
do do do .....	1892		99,936 96		
do do do .....	1893		59,982 74		
do do do .....	1894		158,770 61		
do do do .....	1895		*		
Total .....			3,859,884 54		†

\*Included in Intercolonial Railway capital.

†Included in Intercolonial Railway working expenses.

OXFORD AND NEW GLASGOW RAILWAY.

Government expenditure prior to Confederation.....	1868				
do since do .....	1869				
do do do .....	1870				
do do do .....	1871				
do do do .....	1872				
do do do .....	1873				
do do do .....	1874				
do do do .....	1875				
do do do .....	1876				
do do do .....	1877				
do do do .....	1878				
do do do .....	1879				
do do do .....	1880				
do do do .....	1881				
do do do .....	1882				
do do do .....	1883				
do do do .....	1884				
do do do .....	1885				
do do do .....	1886				
do do do .....	1887				
do do do .....	1888		280,932 35		
do do do .....	1889		840,553 57		
do do do .....	1890		434,074 60		
do do do .....	1891		220,886 39		
do do do .....	1892		48,745 23		
do do do .....	1893		7,922 80		
do do do .....	1894		112,382 75		
do do do .....	1895		*		
Total .....			1,945,497 69		

\*Included in Intercolonial Railway capital.

†Included in Intercolonial Railway working Expenses.

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

# Department of Railways and Canals.

## MONTREAL AND EUROPEAN SHORT LINE RAILWAY.

	Year.	Construction.	Working expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation.....	1868			
do since do .....	1869			
do do do .....	1870			
do do do .....	1871			
do do do .....	1872			
do do do .....	1873			
do do do .....	1874			
do do do .....	1875			
do do do .....	1876			
do do do .....	1877			
do do do .....	1878			
do do do .....	1879			
do do do .....	1880			
do do do .....	1881			
do do do .....	1882			
do do do .....	1883			
do do do .....	1884			
do do do .....	1885	49,587 45		
do do do .....	1886	135,214 38		
do do do .....	1887	24,157 32		
do do do .....	1888	397 35		
do do do .....	1889			
do do do .....	1890			
do do do .....	1891	124,568 23		
do do do .....	1892			
do do do .....	1893			
do do do .....	1894	17 99		
do do do .....	1895			
Total.....		333,942 72		

**LEONARD SHANNON,**  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTAWA, 1st November, 1895.

PRINCE EDWARD ISLAND RAILWAY.

	Year.	Construction.	Working expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation.....	1874	3,114,735 11	750 00	
do since do .....	1875	46,086 63	49,344 62	24,493 99
do do do .....	1876	42,546 10	219,930 43	118,060 96
do do do .....	1877	200,000 00	228,595 25	130,664 92
do do do .....	1878	6,551 86	221,599 49	135,899 60
do do do .....	1879	40,129 05	223,313 12	125,855 91
do do do .....	1880	16,539 82	164,640 55	113,851 11
do do do .....	1881		203,122 88	131,131 43
do do do .....	1882	402 03	228,259 97	137,267 54
do do do .....	1883	57,186 02	252,808 41	146,170 42
do do do .....	1884	130,663 38	236,428 13	144,504 12
do do do .....	1885	76,956 56	211,207 01	158,588 06
do do do .....	1886	4,668 33	216,744 34	155,584 36
do do do .....	1887	5,800 00	204,237 45	155,303 37
do do do .....	1888		229,639 95	158,363 62
do do do .....	1889		247,559 44	171,369 56
do do do .....	1890		266,485 85	160,971 78
do do do .....	1891		257,990 08	174,258 05
do do do .....	1892	8,300 49	289,706 38	157,442 69
do do do .....	1893		226,422 17	162,690 42
do do do .....	1894		226,891 06	158,533 83
do do do .....	1895		232,905 19	149,654 78
Total.....		3,750,565 38	4,638,581 77	2,970,660 52

LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

# Department of Railways and Canals.

## CANADIAN PACIFIC RAILWAY.

	Year.	Construction, including Subsidy of \$25,000,000.	Working Expenses.	Revenue received.
		\$    cts.	\$    cts.	\$    cts.
Government expenditure prior to Confederation				
do since do	1868			
do do do	1869			
do do do	1870			
do do do	1871	30,148 32		
do do do	1872	489,428 16		
do do do	1873	561,818 44		
do do do	1874	310,224 88		
do do do	1875	1,546,241 67		
do do do	1876	3,346,567 06		
do do do	1877	1,691,149 97		
do do do	1878	2,228,373 13		
do do do	1879	2,240,285 47		
do do do	1880	4,044,522 72	78,892 01	104,975 69
do do do	1881	4,968,503 93	236,944 98	291,498 06
do do do	1882	(1) 4,589,075 79	1,786 20	
do do do	1883	(2) 10,033,800 04	266 09	
do do do	1884	(3) 11,192,722 02	327 02	
do do do	1885	(4) 9,900,281 53		
do do do	1886	(5) 3,672,584 81		
do do do	1887	(6) 915,057 49		
do do do	1888	52,098 65		
do do do	1889	86,716 07		
do do do	1890	40,980 54		
do do do	1891	37,367 00		
do do do	1892	66,211 39		
do do do	1893	413,836 49		
do do do	1894	146,539 87		
do do do	1895	49,209 77		
Total		*62,653,745 21	318,216 30	396,473 75

\* Agrees with Public Accounts balance sheet, 1894-95.

(1) Including	\$ 2,210,000 00	on account subsidy.
(2) do	5,323,076 60	do
(3) do	7,254,208 27	do
(4) do	6,862,201 00	do
(5) do	2,890,427 00	do
(6) do	460,087 13	do
	\$25,000,000 00	

LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

## ANNAPOLIS AND DIGBY RAILWAY.

	Year.	Capital.		Working Expenses.	
		\$	cts.	\$	cts.
Government expenditure prior to Confederation.....					
do since do .....	1868				
do do do .....	1869				
do do do .....	1870				
do do do .....	1871				
do do do .....	1872				
do do do .....	1873				
do do do .....	1874				
do do do .....	1875				
do do do .....	1876				
do do do .....	1877				
do do do .....	1878				
do do do .....	1879				
do do do .....	1880				
do do do .....	1881				
do do do .....	1882				
do do do .....	1883				
do do do .....	1884				
do do do .....	1885				
do do do .....	1886				
do do do .....	1887				
do do do .....	1888				
do do do .....	1889		9,847 27		
do do do .....	1890		381,942 75		
do do do .....	1891		196,869 36		
do do do .....	1892		26,129 39		
do do do .....	1893		2,190 62		
do do do .....	1894		1,675 36		
do do do .....	1895		570 55		
Total.....			619,225 80		

LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

# Department of Railways and Canals.

## RECAPITULATION—RAILWAYS.

	Year.	Construction.	Working Expenses.	Revenue Received.
		\$    cts.	\$    cts.	\$    cts.
Government expenditure prior to Confederation		13,881,460 65		
do since do	1868	483,353 65	359,961 08	420,752 58
do do do	1869	282,615 18	387,548 47	455,022 76
do do do	1870	1,729,381 49	445,208 75	471,245 09
do do do	1871	2,946,930 45	442,993 31	565,713 52
do do do	1872	5,620,569 67	595,076 22	622,900 56
do do do	1873	5,763,268 81	1,011,892 60	703,458 26
do do do	1874	3,925,123 69	1,847,925 24	893,430 17
do do do	1875	5,018,427 85	1,581,934 24	886,087 42
do do do	1876	4,497,434 75	1,497,128 22	966,922 42
do do do	1877	3,209,502 16	1,890,268 80	1,285,110 27
do do do	1878	2,643,741 73	2,032,873 05	1,514,846 38
do do do	1879	2,507,053 71	2,233,496 34	1,419,955 60
do do do	1880	6,109,077 14	1,851,489 26	1,739,137 25
do do do	1881	5,577,236 73	2,220,421 39	2,200,486 25
do do do	1882	5,175,046 61	2,310,638 54	2,237,583 39
do do do	1883	11,707,619 02	2,636,551 70	2,541,205 41
do do do	1884	14,013,074 89	2,613,508 87	2,551,937 97
do do do	1885	11,224,244 54	2,749,710 53	2,624,243 07
do do do	1886	4,443,220 17	2,819,973 50	2,628,336 35
do do do	1887	1,846,887 18	3,152,650 40	2,840,747 88
do do do	1888	1,765,582 11	3,621,076 62	3,166,253 22
do do do	1889	2,709,857 37	3,513,063 67	3,167,542 67
do do do	1890	2,392,767 99	3,846,044 42	3,203,874 11
do do do	1891	1,184,317 34	3,949,263 73	3,181,888 56
do do do	1892	417,425 73	3,748,597 77	3,136,393 51
do do do	1893	712,917 44	3,288,629 62	3,262,505 62
do do do	1894	585,749 01	3,226,208 13	3,179,019 57
do do do	1895	376,814 83	3,197,846 17	3,129,450 37
Total . . . . .		*122,750,701 89	63,071,980 64	54,996,050 23

\* Total amount paid on construction . . . . . \$122,750,701 89  
 Less amount received from the city of St. John, N.-B., as purchase of the  
 Carleton Branch Railway . . . . . 40,000 00  
 Total cost of construction . . . . . \$122,710,701 89

**LEONARD SHANNON,**  
 DEPARTMENT OF RAILWAYS AND CANALS, *Accountant.*  
 OTTAWA, 1st November, 1895.

## APPENDIX

STATEMENT showing Subsidies voted for Railways as to which contracts

Subsidies voted.		Railways.				
Authority.	Amount.		1883-84.	1884-85.	1885-86.	1886-87.
	\$ cts.		\$	\$	\$	\$
46 Vic., cap. 25	156,800 00	International Railway, Quebec.	144,000			
53 do 2						
45 do 14	384,000 00	Quebec and Lake St. John Railway, Quebec.				
46 do 25	80,000 00					
48-49 do 59	96,000 00					
49 do 10	186,295 00					
50-1 do 24	28,800 00		32,000	37,027	186,745	202,219
51 do 3	96,000 00					
52 do 3	64,000 00					
53 do 2	30,000 00					
54-5 do 8	5,250 00					
57-8 do 4	44,800 00					
46 do 25	89,600 00	Kingston, Napanee and Western Railway, formerly Napanee, Tamworth and Quebec Railway, Ontario				
49 do 10	70,000 00					
50-1 do 24	12,800 00					
52 do 3	32,000 00		32,000	57,600		
55-6 do 5	64,000 00					
47 do 8	272,000 00	Pontiac Pacific Junction Railway, Quebec				
51 do 3	41,000 00					
53 do 2	24,000 00		49,090	41,000	60,580	
46 do 25	115,200 00	Caraquet Railway, N.B.				
47 do 8	76,800 00			32,000	76,800	61,200
50-1 do 24	32,000 00					
47 do 8	32,000 00					
49 do 10	57,600 00					
52 do 3	22,400 00	Great Northern Railway, Quebec.				
53 do 2	48,000 00			25,088		
56 do 2	48,000 00					
57-8 do 4	96,000 00					
47 do 8	48,000 00	Kingston and Pembroke Railway, Ontario		48,000		
45 do 14	660,000 00	Northern and Pacific Junction Railway, Ontario				
46 do 26	660,000 00					
53 do 2				154,440	1,051,590	78,370
47 do 8	128,000 00	Canada Eastern Ry., formerly Northern and Western Ry., N.B.				
48-9 do 59	19,200 00					
49 do 10	32,000 00					
48-9 do 59	140,800 00				128,000	18,200
57-8 do 4	35,200 00					
47 do 8		Quebec Central Railway, Quebec.				
51 do 3	60,342 00				60,342	
53 do 2	288,000 00	Montreal and Sorel Ry., Quebec.				
48-9 do 59	72,000 00				64,972	4,950
53 do 2	40,000 00	Montreal and Champlain Junction Railway, Quebec				
48-9 do 59	30,000 00					
50-1 do 24	64,000 00				30,000	
51 do 3	9,600 00					
46 do 25	38,400 00		Elgin, Petitediac & Havelock Railway, N.B.			
51 do 3	44,252 82				38,400	
47 do 8	22,400 00	St. Louis and Richibucto Ry., N.B.			22,400	
48-9 do 59	96,000 00	Canada Atlantic Railway, Ont.				
49 do 10	38,400 00				48,480	44,384
50-1 do 24	180,000 00	Esquimalt and Nanaimo Ry., B.C.				
47 do 6	750,000 00				422,520	327,480
47 do 8	96,000 00	Erie and Huron Railway, Ontario				96,000
46 do 25	320,000 00	Baie des Chaleurs Railway, Que.				
47 do 8	300,000 00					250,000
52 do 3			New Brunswick and Prince Edward Railway, N.B.			
48-9 do 59	118,400 00					97,440



## Department of Railways and Canals.

No. 3.

have been entered into and payments made up to the 30th June, 1895.

Payments.								Total
1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	to 30th June 1895.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
8,960 00		3,840 00						156,800 00
232,013 00	19,911 00	38,440 00	70,350 00	26,222 73	76,471 77	81,600 00		1,002,999 50
		95,744 00	7,600 00		1,856 00	13,932 80		208,732 80
24,158 00							18,750 00	193,578 00
40,050 00	13,950 00							224,000 00
		20,000 00	9,500 00	24,100 00			32,000 00	110,688 00
								48,000 00
		35,000 00	600 00					1,320,000 00
159,400 00	6,300 00	100 00					30,400 00	342,400 00
								60,342 00
		6,719 50	17,116 07					93,757 57
16,400 00	36,700 00	5,400 00				15,100 00		103,600 00
				44,252 82				82,652 82
								22,400 00
	9,491 20	149,812 00	30,188 00					282,355 20
								750,000 00
								96,000 00
50,300 00	75,200 00	148,675 00				95,825 00		620,000 00
16,000 00								113,440 00

APPENDIX No. 3.—Statement showing Subsidies voted for Railways

Subsidies voted.		Railways.			
Authority.	Amount.	1883-84.	1884-85.	1885-86.	1886-87.
	\$ cts.	\$	\$	\$	\$
50-1 Vic., c. 24	217,600 00				
49 do 10	11,200 00				64,430
49 do 10	32,000 00				11,200
50-51 do 24	96,000 00				
56 do 2	64,000 00				19,200
53 do 2	37,500 00				
47 do 8	160,000 00				
52 do 3					15,000
49 do 10	96,000 00				
50-51 do 24	6,400 00				40,480
47 do 8	51,200 00				
52 do 3					1,000
57-8 do 4	274,940 00				14,000
49 do 10	38,400 00				
50-1 do 24	4,000 00				
45 do 14	240,000 00				
48-9 do 58	238,000 00				
51 do 3	100,000 00				
53 do 2	51,200 00				
48-9 do 59	44,800 00				
50-1 do 24	6,400 00				
49 do 10	16,000 00				
50-1 do 24	22,400 00				
49 do 10	256,000 00				
53 do 2					
50-1 do 24	96,000 00				
52 do 3	14,400 00				
53 do 2	76,800 00				
57-8 do 4	96,000 00				
48-9 do 59	128,000 00				
53 do 2					
54-5 do 8	64,000 00				
57-8 do 4					
49 do 10	32,000 00				
53 do 2	10,200 00				
50-1 do 24	54,400 00				
50-1 do 24	51,200 00				
48-9 do 59	22,400 00				
49 do 10					
49 do 10	108,800 00				
52 do 3	48,000 00				
50-1 do 24	118,400 00				
55-6 do 5	224,000 00				
50-1 do 24	96,000 00				
50-1 do 24	38,400 00				
55-6 do 5	108,000 00				
57-8 do 4	108,800 00				
52 do 3	30,000 00				
50-1 do 24	9,600 00				
55-6 do 5	240,000 00				
50-1 do 24	44,800 00				
52 do 3	19,200 00				
52 do 3	54,400 00				
52 do 3					
56 do 3	96,000 00				
52 do 3	375,000 00				

## Department of Railways and Canals.

as to which contracts have been entered into, &c.—*Continued.*

Payments.								Total
1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	to 30th June 1895.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
28,383 00			32,003 00	92,784 00				217,600 00
								11,200 00
			16,300 00	4,845 00				40,345 00
					17,000 00	32,000 00	32,000 00	96,000 00
20,573 57		4,366 00	1,600 43			34,580 00		101,600 00
18,423 57	1,387 06		10,684 37	18,960 00				50,460 00
3,000 00	9,000 00	26,360 00					233,198 95	285,958 95
26,138 78		9,761 22	1,600 00					37,500 00
249,684 00	163,216 00	74,300 00	82,770 00	54,830 00	21,150 00			645,959 00
32,000 00	19,200 00							51,200 00
14,656 00								14,656 00
11,840 00	3,520 00							15,360 00
60,000 00	800 00	189,200 00	6,000 00					256,000 00
15,057 00	13,815 00	12,428 00	136,000 00	5,105 00	13,435 00		92,096 00	287,936 00
	45,000 00		47,400 00	12,800 00				105,200 00
	19,700 00	20,080 00	1,500 00					41,280 00
	54,400 00							54,400 00
	46,000 00							46,000 00
	21,888 00							21,888 00
	63,900 00	91,300 00						155,200 00
	106,500 00	11,900 00				220,331 00		338,731 00
	54,650 00	4,250 00						58,900 00
	26,640 00		11,760 00					38,400 00
	30,000 00							30,000 00
	5,553 57							5,553 57
		219,100 00	3,300 00	8,300 00				230,700 00
		29,400 00	10,450 00					39,850 00
		9,800 00	3,800 00					13,600 00
		10,400 00				14,000 00		24,400 00
		65,600 00					30,400 00	96,000 00
		173,000 00	143,400 00	58,600 00				375,000 00

## APPENDIX No. 3.—Statement showing Subsidies voted for Railways

Subsidies voted.		Railways.	1883-84.	1884-85.	1885-86.	1886-87.
Authority.	Amount.					
	\$ cts.		\$	\$	\$	\$
50-1 Vic., c. 24	57,600 00	{ Brantford, Waterloo and Lake Erie Railway, Ontario.....				
57-8 do 4						
51 do 3	287,200 00	{ Port Arthur, Duluth and Western Railway, Ontario.....				
53 do 2						
50-1 do 24	192,000 00	Montreal and Ottawa Ry., Ontario.				
53 do 2						
54-5 do 8						
57-8 do 4						
50-1 do 24	44,800 00	Cornwallis Valley Railway, N.S.....				
52 do 3						
52 do 3	320,000 00	{ Ottawa and Gatineau Railway, Quebec.....				
57-8 do 6						
51 do 3	83,612 54	{ Central Railway, N.B.....				
52 do 3						
53 do 2	142,400 00	Montreal and Western Railway, Qu.				
57-8 do 4						
53 do 2	361,270 00	Parry Sound Colonization Ry, Ont.				
52 do 3						
57-8 do 4	64,000 00	Shuswap and Okanagan Ry., B.C...				
52 do 3						
54-5 do 8	89,600 00	{ Tobique Valley Ry., N.B.....				
53 do 2						
53 do 2	112,000 00	Columbia and Kootenay Ry., B.C..				
53 do 2						
53 do 2	99,200 00	Waterloo Junction Ry., Ont.....				
53 do 2						
53 do 2	57,600 00	Orford Mountain Ry., Que.....				
55-6 do 5						
51 do 3	25,024 00	{ St. Lawrence and Adirondack Ry., Que.....				
55-6 do 5						
51 do 3	24,439 84	Chatham Branch Ry., N.B.....				
55-6 do 5						
56 do 2	102,400 00	New Glasgow Iron, Coal and Ry., N.S.....				
57-8 do 4						
55-6 do 5	21,600 00	{ United Counties Ry., Que.....				
55-6 do 5						
55-6 do 5	430,400 00	Philipsburg Junction Ry. Quarry Co., Que.....				
56 do 2						
55-6 do 5	67,200 00	Ottawa, Arnprior & Parry Sound Ry., Ont.....				
55-6 do 5						
57-8 do 4	48,000 00	Montfort Colonization Ry., Que....				
56 do 2						
55-6 do 5	48,000 00	{ Lotbinière and Mégantic Ry., Que.....				
57-8 do 4						
56 do 2	48,000 00	Grand Trunk, Georgian Bay and Lake Erie Ry., Ont.....				
55-6 do 5						
57-8 do 4	80,000 00	Canadian Pacific Ry., Revelstoke to Arrow Lake, B.C.....				
55-7 do 5						
57-8 do 4	121,600 00	Nakusp and Slocan Ry., B.C.....				
55-7 do 5						
55-7 do 5	89,600 00	Dominion Coal Co., N.S.....				
37 do 14						
46 do 2	1,525,250 00	Canada Central Ry.....	208,000	403,245	2,171,249	1,406,533
44 do 1						
47 do 8	25,000,000 00	Canadian Pacific, main line.....				
48-9 do 58						
47 do 8	1,500,000 00	Canadian Pacific, extension.....				
48-9 do 58						
		Western Counties Ry.....				

This return does not include the Atlantic and North-western Railway.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 1st November, 1895.

## Department of Railways and Canals.

as to which contracts have been entered into, &c.—*Concluded.*

Payments.								Total to 30th June 1895.
1887-88	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
		36,620 00	16,190 00					52,810 00
			87,000 00	70,075 00	114,125 00			271,200 00
			49,960 00			23,640 00		73,600 00
			42,670 00	2,130 00				44,800 00
			87,582 00	38,790 00	104,380 00	53,376 00		284,128 00
			75,639 00	83,612 54				159,251 54
			76,143 00	32,253 00	133,388 00	119,486 00		361,270 00
				30,400 00	28,820 00		68,780 00	128,000 00
				162,260 00		640 00	300 00	163,200 00
				73,000 00	41,674 46	19,341 54		134,016 00
				88,800 00				88,800 00
				32,800 00				32,800 00
				32,000 00		52,800 00		84,800 00
				40,256 00	24,448 00	297 60		65,001 60
				24,439 84				24,439 84
					32,945 84	5,454 16		38,400 00
						88,973 00	42,728 15	131,701 15
						18,688 00	2,912 00	21,600 00
						101,120 00	249,280 00	350,400 00
						32,000 00	35,200 00	67,200 00
						35,200 00	38,400 00	73,600 00
							39,744 00	39,744 00
							28,000 00	28,000 00
							117,760 00	117,760 00
							32,000 00	32,000 00
1,027,041 92	846,721 83	1,491,595 72	1,079,105 87	1,061,615 93	624,794 07	1,043,285 10	1,123,949 10	12,487,136 54
								1,525,250 00
								25,000,000 00
								1,500,000 00
								500,000 00
								41,012,386 54

LEONARD SHANNON,  
*Accountant.*

## APPENDIX No. 4.

## DEPARTMENT OF RAILWAYS AND CANALS,

## OFFICE OF THE CHIEF ENGINEER,

OTTAWA, 30th September, 1895.

SIR,—I have the honour to submit my annual report for the fiscal year ended 30th June, 1895, covering, however, works of construction up to the present date; accompanying it are the following:—

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

Second.—The annual reports of the Superintending Engineers of the several canals, and of the Inspector of Canals Revenue.

Third.—A statement of the condition of the subsidies granted in aid of the construction of railways: also a list of Railway Subsidy Acts.

Fourth.—Statement of contracts entered into during the year, prepared by Mr. Doull.

Fifth.—Statement of water powers and other public property leased by the department during the year, prepared by Mr. Doull.

Sixth.—Statement of property purchased or damaged during the year, prepared by Mr. Doull.

Seventh.—Agreements respecting subsidies in aid of construction of railways entered into during the year, prepared by Mr. Doull.

Eighth.—The canal statistics for the season of navigation of 1894, compiled by Mr. Devlin.

Ninth.—The railway statistics for the year ended 30th June, 1895, compiled by Mr. Ridout from returns prepared by the railway companies.

Tenth.—A paper read by the Honourable Sir Charles Tupper, High Commissioner for Canada, before the International Railway Congress, on railway progress in the Dominion, and its beneficial effect on the economic development of the country.

The following table shows the length of the Government railways in operation on the 30th of June, 1895:

## INTERCOLONIAL DIVISION.

	Miles.	Total miles.
Chaudière Junction to Halifax.....	678	
Moncton to St. John.....	89	
Truro to Sydney.....	217	
Oxford Junction to Pictou.....	70	
Chaudière Junction to Lévis.....	8	
Lévis to St. Charles Junction via Harlaka.....	14	
Dalhousie Junction to Dalhousie.....	7	
Derby Junction to Indiantown.....	14	
Painsec Junction to Indiantown.....	11	
Pugwash Junction to Pugwash.....	5	
Stellarton Junction to Brown's Point.....	12	
North Sydney Junction to North Sydney.....	5	
New Glasgow to Pictou Landing.....	7	
Dartmouth Branch.....	5	

Carried forward..... 1,142

## Department of Railways and Canals

### FREIGHT BRANCHES.

	Miles.	Total miles.
Brought forward .....	...	1,142
Rivière du Loup Wharf Branch .....	4	
Rimouski do .....	2	
Newcastle do .....	2	
Dorchester do .....	1	
Courtney Bay do .....	1	
Sackville do .....	1	
Stewiacke do .....	1	
Halifax Cotton Factory Branch. . . . .	1	
	—	12½
Total length of the Intercolonial Railway.....		1,154½

### WINDSOR BRANCH.

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

### PRINCE EDWARD ISLAND DIVISION.

Souris to Tignish .....	168
Mount Stewart to Georgetown.....	24
Charlottetown to Royalty Junction .....	5
Emerald Junction to Cape Traverse.....	13
Alberton to Cascumpec Wharf ... . . . .	1
	—
	211
Total length of Government railways .....	1,397½

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

Name of Railway.	Mileage in operation.		Amount.	Profit.	Loss.
			\$ cts.	\$ cts.	\$ cts.
Intercolonial Division.....	1,142	Earnings .....	2,940,717 95		
		Working expenses.....	2,936,902 74	3,815 21	
Windsor Branch.....	32	½ earnings .....	39,077 64		
		Maintenance.....	14,640 07	24,437 57	
Prince Edward Island Division	211	Earnings .....	149,654 78		
		Working expenses.....	232,905 19		83,250 41
				28,252 78	83,250 41
		Deduct profit from loss .....			28,252 78
Total miles.....	1,385	Net loss .....			54,997 63

The maintenance of the road and rolling stock has received careful attention and both road and rolling stock are in efficient condition, the business of the road has been closely looked after as is evident by the results of the operations for the year, given above.

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

	1893-94.	1894-95.
	\$ cts.	\$ cts.
Intercolonial Division .....	2,987,510 27	2,940,717 95
Windsor Branch .....	32,975 47	39,077 64
Prince Edward Island Division .....	158,533 83	149,654 78
<b>Total</b> .....	<b>3,179,019 57</b>	<b>3,129,440 37</b>

Showing a decrease in the gross earning of \$49,579.20

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

	1893-94.	1894-95.
	\$ cts.	\$ cts.
Intercolonial Division .....	2,981,671 98	2,936,902 74
Windsor Branch .....	17,645 09	14,640 07
Prince Edward Island Division .....	226,891 06	232,905 19
<b>Total</b> .....	<b>3,226,208 13</b>	<b>3,184,448 00</b>

Showing a reduction in working expenses for the year, compared with the previous year, of \$41,760.13, which is made up of the following :—

	1893-94.	1894-95.	Difference.	
			Increase.	Decrease.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Locomotive power .....	1,139,245 50	1,108,697 53	.....	30,547 97
Car expenses .....	710,681 32	685,164 28	.....	25,517 04
Maintenance of way and works .....	774,183 33	795,707 76	21,524 43	.....
Station expenses .....	395,972 08	397,251 45	1,279 37	.....
General charges .....	206,125 90	197,636 98	.....	8,488 92
	3,226,208 13	3,184,448 00	22,803 80	64,553 93
<b>Net decrease</b> .....				<b>22,803 80</b>
				<b>41,750 13</b>

### INTERCOLONIAL DIVISION.

The ocean-borne traffic both in passenger and freight via the port of Halifax shows a decrease for the winter season of 1894-95 as compared with the previous winter season, as will be seen by the two following statements :—



## Department of Railways and Canals.

COMPARATIVE STATEMENT of ocean-borne passenger business done at the port of Halifax during the winter seasons of 1893-94 and 1894-95.

Name of Steamer.	1893-94. No. of Passengers.			Name of Steamer.	1894-95. No. of Passengers.		
	1st Class.	2nd Class.	Total.		1st Class.	2nd Class.	Total.
Carthagénian.....	7	273	280	Carthagénian.....	4	45	49
Oregon.....	37	273	310	Oregon.....	41	327	378
Markomonia.....	9	41	50	Numidian.....	58	457	515
Numidian.....	52	436	488	Labrador.....	77	344	421
Stubbenkerk.....	Nil.	255	255	Assyrian.....	10	210	220
Labrador.....	65	667	732	Mongolian.....	32	168	200
Assyrian.....	7	33	40	Vancouver.....	52	458	510
Gremin.....	Nil.	225	225	Corean.....	Nil.	15	15
Mongolian.....	27	290	317	Laurentian.....	25	253	278
Lake Winnipeg.....	11	334	345	Pomeranian.....	3	69	72
Vancouver.....	34	342	376	Parisian.....	12	279	291
Corean.....	1	42	43	Sarnia.....	18	126	144
Laurentian.....	15	240	255				
Lake Ontario.....	16	144	160				
Lake Superior.....	6	132	138				
Lake Népigon.....	1	43	44				
Pomeranian.....	4	55	59				
Parisian.....	22	423	445				
Sarnia.....	13	420	433				
<b>Total.....</b>	<b>327</b>	<b>4,668</b>	<b>4,995</b>	<b>Total.....</b>	<b>332</b>	<b>2,761</b>	<b>3,093</b>

Of the 4,495 passengers in 1893-94, 3,303 travelled via St. John by the Canadian Pacific Railway and 1,692 travelled via Chaudière by the Grand Trunk Railway.

Of the 3,093 passengers in 1894-95, 1,746 travelled via St. John by the Canadian Pacific Railway, and 1,347 travelled via Chaudière by the Grand Trunk Railway.

COMPARATIVE STATEMENT of ocean-borne freight traffic during the winter seasons of 1893-94 and 1894-95.

Name of Line of Steamers.	WINTER OF 1893-94.			Name of Line of Steamers.	WINTER OF 1894-95.		
	Measure-ment tons.	Weight tons.	Total tons.		Measure-ment tons.	Weight tons.	Total tons.
Allan Line from Liverpool.....	2,280	1,536	3,816	Allan Line from Liverpool.....	1,903	1,997	3,900
Canada & Newfoundland from Liverpool.....	134	360	494	Dominion Line from Liverpool.....	547	348	895
Furness Line from London.....	1,183	817	2,000	Canada & Newfoundland from Liverpool.....	82	223	305
Dominion Line from Liverpool.....	673	133	806	Furness Line from London.....	1,022	457	1,479
Donaldson Line from Glasgow.....	10	213	223	Donaldson Line from Glasgow.....	1,252	1,836	3,088
Hansa Line from Antwerp.....	1	Nil.	1	Hansa Line from Antwerp.....	Nil.	Nil.	Nil.
Beaver Line from Liverpool.....	101	121	222	Beaver Line from Liverpool.....	Nil.	Nil.	Nil.
				Société Columba Belge de Navigation.....	12	243	255
<b>Total. . . . .</b>	<b>4,382</b>	<b>3,180</b>	<b>7,562</b>	<b>Total.....</b>	<b>4,818</b>	<b>5,104</b>	<b>9,922</b>

The above statement shows an increase of 2,360 tons of ocean-borne freight traffic for the winter season of 1894-95 over the winter season of 1893-94, a result somewhat unexpected, the destruction by fire of the wharfs and warehouses at the deep water terminus and at Richmond in the city of Halifax, having led to the anticipation that the traffic would be directed to some other port. However, the temporary arrangements made by the Honourable Minister of Railways and Canals for the accommodation of the ocean-borne freight arriving at and departing from the port of Halifax were such as to obviate inconvenience as far as possible, and the traffic was carried on with fairly good despatch under the circumstances.

The railway property destroyed by fire at the deep water ocean terminus at Halifax on the 27th February, 1895, consisted of:—

Wharf.....	\$72,000
Freight house.....	15,900
Elevated coal trestle.....	14,000
Grain elevator.....	85,000
Pile driver.....	600
Freight cars.....	5,600
Tracks.....	6,000
Trucks, gangways, offices, &c.....	1,000
Emigrant sleeper shed.....	2,000
<b>Total.....</b>	<b>\$202,100</b>

The railway property consumed by fire at the deep water ocean terminus at Richmond, Halifax, on the 19th of May, 1895, consisted of:—

Wharf.....	\$57,000
Coal trestle.....	8,000
Cattle shed.....	8,000
Freight shed.....	7,000
Sugar warehouse.....	7,000
36 cars.....	5,900
<b>Total.....</b>	<b>\$92,900</b>

The following is a statement of the quantity and classes of the rolling stock purchased on capital account up to the 30th June, 1895:—

	Engines.	Passenger Car Stock.					Conductors' Vans.	Box and Cattle Cars.	Platform Cars.	Coal Cars of three several kinds.	Snow Ploughs.	Wing Ploughs.	Flangers.	Rotary Snow Ploughs.
		1st Class Sleeping and ParLOUR.	1st Class.	2nd Class Sleeping.	2nd Class.	Baggage and Mail.								
	204	15	92	7	94	24	99	2,071	2,209	999	44	10	21	2
		5				39		103		418				
										768				
<b>Total.....</b>	<b>204</b>	<b>20</b>	<b>92</b>	<b>7</b>	<b>94</b>	<b>63</b>	<b>99</b>	<b>2,174</b>	<b>2,209</b>	<b>2,185</b>	<b>44</b>	<b>10</b>	<b>21</b>	<b>2</b>

## Department of Railways and Canals.

The following is a statement of the quantity and classes of rolling stock which have been rebuilt during the year ended 30th June, 1895, at the cost of revenue to maintain the stock:—

	Engines.	Passenger Car Stock.				Conductors' Vans.	Box and Cattle Cars.	Platform Cars.	Coal Cars of three several kinds.	Snow Ploughs.	Wing Ploughs.	Flangers.	Rotary Snow Ploughs.
		1st Class Sleeping and Parlour.	1st Class.	2nd Class Sleeping.	2nd Class.								
	6		5			4		42	78	8			

The following table shows the working expenses, gross earnings, the tonnage of freight and number of passengers carried each year since 1st July, 1876, when the road was first opened as a through line to the west:—

Year.	Average Miles in Operation.	Working Expenses.		Gross Earnings.		Profit.		Loss.		Tons of Freight carried.	No. of Passengers carried.
		\$	cts.	\$	cts.	\$	cts.	\$	cts.		
1876-77	714	1,661,673	55	1,154,445	33			507,228	22	421,327	613,420
1877-78	714	1,816,273	56	1,378,946	78			432,326	78	522,710	618,957
1878-79	714	2,010,183	22	1,294,009	69			716,083	53	510,861	640,101
1879-80	829	1,603,429	71	1,506,298	48			97,131	23	561,924	581,483
1880-81	840	1,759,851	27	1,760,393	92		542 65			725,777	631,245
1881-82	840	2,069,657	48	2,079,262	66		9,605 18			838,956	779,994
1882-83	840	2,360,373	27	2,370,910	10		10,547 83			970,961	878,600
1883-84	887	2,377,433	62	2,384,414	92		6,981 30			1,009,237	944,636
1884-85	941	2,519,751	56	2,441,203	66			78,547 90		989,936	957,228
1885-86	946	2,583,999	67	2,450,093	88			133,905 79		1,023,788	932,880
1886-87	966	2,922,369	62	2,660,116	93			262,252 69		1,143,020	942,784
1887-88	971	3,366,781	74	2,983,336	05			383,445 69		1,288,823	1,040,163
1888-89	971	3,244,647	73	2,967,801	00			276,846 73		1,218,877	1,136,272
1889-90	971	3,560,575	74	3,012,739	87			547,835 87		1,368,819	1,219,233
1890-91	1,094	3,662,341	94	2,977,395	38			684,946 56		1,304,534	1,298,304
1891-92	1,142	3,439,377	00	2,945,441	97			493,935 03		1,264,575	1,297,732
1892-93	1,142	3,045,317	50	3,065,499	09		20,181 59			1,388,080	1,292,878
1893-94	1,142	2,981,671	98	2,987,510	27		5,838 29			1,342,710	1,301,062
1894-95	1,142	2,936,902	74	2,940,717	95		3,815 21			1,267,816	1,352,667

The following table shows the number of tons of coal carried over the Intercolonial Railway from the Nova Scotia collieries to Chaudière Junction and St. John for points west thereof, and to local stations in each year since the commencement of the trade in 1878-79:—

Year.	For the West.		To Local Stations.	Total.
	Via Chaudière.	Via St. John.		
1876-77			103,420	103,420
1877-78			97,043	97,043
1878-79	300		112,232	112,532
1879-80	1,097		135,369	136,466
1880-81	6,102	4,022	174,483	184,607
1881-82	18,015	11,779	218,364	248,158
1882-83	12,837	22,206	227,380	262,423
1883-84	22,014	19,534	252,014	293,562
1884-85	133,440	1,773	213,791	349,004
1885-86	171,170	21,150	215,272	407,592
1886-87	192,871	27,536	233,178	453,585
1887-88	183,704	36,228	309,727	529,659
1888-89	160,026	27,923	338,538	526,487
1889-90	164,453	25,126	366,967	556,546
1890-91	113,996	39,213	344,829	498,038
1891-92	35,447	5,918	392,441	433,806
1892-93	136,868	3,775	402,653	543,296
1893-94	102,273	8,028	367,390	478,691
1894-95	67,082	7,865	310,253	385,200

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

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

Year.	Bushels.		Total.	Year.	Bushels.		Total.
	Via Chaudière.	Via St. John.			Via Chaudière.	Via St. John.	
				Brought forward	794,423		794,423
1876-77				1886-87	575,880		575,880
1877-78				1887-88	69,021		69,021
1878-79				1888-89	129,725		129,725
1879-80				1889-90	502,012		502,012
1880-81				1890-91	148,803	69,534	218,337
1881-82				1891-92	745,997	519,500	1,265,497
1882-83	31,011		31,011	1892-93	155,306	197,669	352,975
1883-84	73,389		73,389	1893-94	Nil.	8,026	8,026
1884-85	300,901		300,901	1894-95	Nil.	Nil.	Nil.
1885-86	389,122		389,122				
Carried forward.	794,423		794,423	Total....	3,121,167	794,729	3,915,896

## Department of Railways and Canals.

**TABLE showing the number of barrels of flour carried during each year since the road was first opened as a through line to the west.**

Year.	Barrels.	Year.	Barrels.
1876-77.....	254,710	1886-87.....	763,894
1877-78.....	657,778	1887-88.....	871,838
1878-79.....	630,329	1888-89.....	948,514
1879-80.....	533,248	1889-90.....	1,116,050
1880-81.....	672,310	1890-91.....	1,013,129
1881-82.....	692,095	1891-92.....	954,015
1882-83.....	983,916	1892-93.....	856,913
1883-84.....	817,134	1893-94.....	944,967
1884-85.....	935,977	1894-95.....	938,351
1885-86.....	761,127		

**TABLE showing the number of bushels of grain carried during each year since the road was first opened as a through line to the west.**

Year.	Bushels.	Year.	Bushels.
1876-77.....	292,852	1886-87.....	1,018,395
1877-78.....	331,170	1887-88.....	1,219,035
1878-79.....	302,921	1888-89.....	1,526,158
1879-80.....	534,021	1889-90.....	2,610,202
1880-81.....	565,678	1890-91.....	2,890,921
1881-82.....	560,253	1891-92.....	3,776,677
1882-83.....	1,195,601	1892-93.....	1,514,619
1883-84.....	654,673	1893-94.....	1,304,684
1884-85.....	734,902	1894-95.....	1,036,384
1885-86.....	849,800		

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

Year.	Feet.	Year.	Feet.
1876-77.....	58,096,474	1886-87.....	161,801,763
1877-78.....	56,626,547	1887-88.....	197,755,272
1878-79.....	55,626,696	1888-89.....	199,507,777
1879-80.....	55,462,654	1889-90.....	210,886,071
1880-81.....	72,841,388	1890-91.....	184,188,324
1881-82.....	78,356,418	1891-92.....	175,474,340
1882-83.....	104,633,417	1892-93.....	181,211,013
1883-84.....	131,120,948	1893-94.....	200,507,949
1884-85.....	138,493,675	1894-95.....	202,247,269
1885-86.....	117,186,512		

TABLE showing the number of live stock carried during each year over the road since it was first opened for traffic as a through line to the west.

Year.	Number.	Year.	Number.
1876-77	34,414	1886-87	82,896
1877-78	46,498	1887-88	98,302
1878-79	47,584	1888-89	85,960
1879-80	70,990	1889-90	86,771
1880-81	61,574	1890-91	95,529
1881-82	73,479	1891-92	87,889
1882-83	68,338	1892-93	93,369
1883-84	60,090	1893-94	79,203
1884-85	70,785	1894-95	72,106
1885-86	74,498		

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

Year.	Via Chau- dière to and from the West.	Via St. John to and from the West.	To and from local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.
1876-77				
1877-78	14,949		3,405	18,354
1878-79	21,628		2,643	24,271
1879-80	21,073		4,952	26,025
1880-81	15,454		3,334	18,788
1881-82	21,607		4,168	25,775
1882-83	24,875		7,911	32,786
1883-84	19,696		6,533	26,229
1884-85	22,787		8,405	31,192
1885-86	13,464		8,216	21,680
1886-87	16,923		9,811	26,734
1887-88	41,864		8,878	50,742
1888-89	17,340		11,481	28,821
1889-90	9,895		11,730	21,625
1890-91	9,923		10,764	20,687
1891-92	9,719	17	23,835	33,571
1892-93	7,295	100	12,319	19,714
1893-94	3,023	204	13,455	16,682
1894-95	6,749	213	10,399	17,361

## Department of Railways and Canals.

**TABLE showing the number of tons of raw and refined sugar carried over the road during each year since it was first opened as a through line.**

Year.	Raw Sugar.				Refined Sugar.			
	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876-77.....	340			340				
1877-78.....	186			186				
1878-79.....	1,041			1,041				
1879-80.....	12,220			12,220				
1880-81.....	13,872			13,872	4,022		2,902	6,924
1881-82.....	14,256		1,290	15,546	7,146		3,607	10,753
1882-83.....	9,465		508	9,973	11,126		5,497	16,623
1883-84.....	13,778		3,068	16,846	14,543		7,265	21,808
1884-85.....	10,381		3,661	14,042	18,024		8,445	26,469
1885-86.....	4,394		3,998	8,392	7,660		5,858	13,518
1886-87.....	20,450		8,500	28,950	15,044		8,395	23,439
1887-88.....	14,320		14,085	28,405	21,641		7,133	28,774
1888-89.....	24,358		7,160	31,518	12,955		11,120	24,075
1889-90.....	7,390		8,913	16,303	6,778		6,125	12,903
1890-91.....	5,088	4,670	8,215	17,973	10,130	468	5,996	16,594
1891-92.....	7,142	3,960	10,535	21,637	12,633	7,674	12,414	32,721
1892-93.....	Nil.	Nil.	10,137	10,137	8,327	6,456	7,840	22,623
1893-94.....	Nil.	Nil.	6,775	6,775	17,729	6,967	8,885	33,581
1894-95.....	Nil.	Nil.	10,342	10,342	13,351	15,819	4,695	33,865

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

Year.	Fresh Fish.				Salt Fish.			
	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876-77.....	530	921	527	1,978	551	1,848	802	3,201
1877-78.....	596	1,015	474	2,085	898	1,644	805	3,347
1878-79.....	471	1,336	817	2,624	988	1,038	1,048	2,974
1879-80.....	519	1,362	453	2,334	1,612	2,238	959	4,809
1880-81.....	498	1,879	920	3,297	2,418	937	1,051	4,406
1881-82.....	475	1,619	957	3,051	4,031	1,066	2,487	7,584
1882-83.....	542	384	393	1,319	3,299	759	1,354	5,412
1883-84.....	838	1,682	412	2,932	1,322	1,143	1,224	3,689
1884-85.....	1,062	1,885	484	3,431	3,563	3,600	1,596	8,759
1885-86.....	1,669	1,645	902	4,216	1,680	2,047	3,376	7,103
1886-87.....	1,278	1,572	2,008	4,858	3,236	569	1,747	5,552
1887-88.....	1,533	1,477	1,031	4,041	2,617	476	1,099	4,193
1888-89.....	2,474	2,000	1,870	6,344	3,070	7,746	2,994	13,810
1889-90.....	2,235	1,787	2,111	6,223	2,449	847	3,288	6,584
1890-91.....	2,029	2,788	1,848	6,665	1,953	1,917	3,236	7,106
1891-92.....	1,367	1,746	547	3,660	1,946	928	1,889	4,763
1892-93.....	1,633	1,875	3,340	6,898	3,262	1,811	2,176	7,249
1893-94.....	1,959	2,192	2,224	6,375	2,921	1,814	2,962	7,697
1894-95.....	2,006	3,726	1,160	6,892	2,075	1,849	5,285	10,209

Twenty-five miles of the 56-lb. steel rails have been lifted and replaced at the cost of revenue by 2,632 tons of 67-lb. steel rails, and 261,424 ties have been renewed.

## CAPITAL ACCOUNT.

Total cost of road and equipment up to 30th June, 1895:—

Road, &c.....	\$47,210,331 59
Rolling stock.....	7,797,607 81
Total.....	<u>\$55,007,939 40</u>

The section of the Dartmouth Branch between Tufts Cove and Richmond crossing the narrows of the Halifax harbour, has been abandoned and the branch is being extended to connect with the Trunk Line at Windsor Junction, a distance of  $11\frac{1}{2}$  miles.

The freight yard and warehouse accommodation at Halifax being too limited for the local traffic, and being at an inconveniently long distance from the centre of the city, increased yard and warehouse accommodation is being provided on the east side of Water street at deep water terminus. The greater part of the addition to the capital account during the year is attributable to these two works.

Both the road and rolling stock have been maintained in a high state of efficiency.

## WINDSOR BRANCH.

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

Three miles of old iron rails have been lifted and replaced by steel rails of 56 lbs. to the yard, and it is believed that after the renewals of rails are made in 1895-96, no further road renewals will be required during the following year.

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

Year.	Miles in Operation.	One-third Gross Earnings.		Proportion of one-third Gross Earnings credited to Line Windsor Junction to Halifax.		Proportion of one-third Gross Earnings credited to the Windsor Branch.		Maintenance Expenses.		Profit.		Loss.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1880-81..	32	28,434	29	7,217	76	21,216	53	20,502	26	714	27	.....	.....
1881-82..	32	28,461	07	7,407	88	21,053	19	13,099	55	7,953	64	.....	.....
1882-83..	32	32,199	77	8,085	88	24,113	89	23,103	93	1,009	96	.....	.....
1883-84..	32	30,428	39	7,409	96	23,018	93	22,140	86	878	07	.....	.....
1884-85..	32	32,246	30	7,794	95	24,451	35	18,751	96	5,699	39	.....	.....
1885-86..	32	31,185	63	7,527	52	23,658	11	19,229	49	4,428	62	.....	.....
1886-87..	32	33,564	58	8,237	00	25,327	58	26,042	33	.....	.....	714	75
1887-88..	32	32,242	85	7,689	30	24,553	55	24,040	33	513	22	.....	.....
1888-89..	32	37,313	43	8,941	32	28,372	11	20,856	50	7,515	61	.....	.....
1889-90..	32	39,544	19	9,381	73	30,162	46	18,982	82	11,179	64	.....	.....
1890-91..	32	39,519	56	9,284	43	30,235	13	28,931	71	1,303	42	.....	.....
1891-92..	32	42,891	23	9,382	38	33,508	85	19,514	37	13,994	48	.....	.....
1892-93..	32	43,901	28	9,585	17	34,316	11	16,889	95	17,426	16	.....	.....
1893-94..	32	41,834	70	8,859	23	32,975	47	17,645	09	15,330	38	.....	.....
1894-95..	32	50,703	84	11,626	20	39,077	64	14,640	07	24,437	57	.....	.....



# Department of Railways and Canals.

## PRINCE EDWARD ISLAND RAILWAY.

### CAPITAL ACCOUNT.

Total cost of road and rolling stock up to 30th June, 1895 :—

Road, &c .....	\$3,291,836 38
Rolling stock.....	458,729 00
Total.....	\$3,750,565 38

The rolling stock provided on capital account consists of :—

Engines.	Passenger Car Stock.				Box and Cattle Cars.	Platform Cars.	Conductors' Vans.	Pay Cars.	Snow Ploughs	Flangers.
	1st Class Cars.	2nd Class Cars.	Baggage and Smoking Cars.	Official Cars.						
21	17	16	3	1	175	125	3	1	8	7

Statement of rolling stock rebuilt during the year—3 platform cars, 1 baggage class car.

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

Year.	Miles in Operation.	Working Expenses.	Gross Earnings.	Loss.	Tons of Freight carried	No. of Passengers carried.
		\$ cts.	\$ cts.	\$ cts.		
1875-76	199	214,930 43	118,060 96	96,869 47	28,358	93,964
1876-77	199	228,595 25	130,664 92	97,930 33	41,039	93,478
1877-78	199	221,599 49	135,899 60	85,699 89	38,923	111,428
1878-79	199	223,313 12	125,855 99	97,457 21	38,668	105,046
1879-80	199	164,640 55	113,851 11	50,789 44	37,208	90,533
1880-81	199	203,122 88	131,131 43	71,991 45	45,336	102,937
1881-82	199	228,259 97	137,267 54	90,922 43	48,315	118,436
1882-83	199	252,808 41	146,170 42	106,637 99	51,920	117,162
1883-84	199	236,428 13	144,504 12	91,924 01	51,841	118,988
1884-85	211	211,207 01	158,588 06	52,618 95	57,346	130,423
1885-86	211	216,744 34	155,584 36	61,159 98	57,913	120,374
1886-87	211	204,237 37	155,303 37	48,934 00	53,589	103,067
1887-88	211	229,639 95	158,363 62	71,276 33	59,603	131,246
1888-89	211	247,559 44	171,369 56	76,189 89	55,682	152,780
1889-90	211	266,485 85	160,971 78	105,514 07	51,604	133,099
1890-91	211	257,990 08	174,258 05	83,732 03	59,511	145,508
1891-92	211	269,706 38	157,442 69	132,263 69	51,065	139,889
1892-93	211	226,422 17	162,690 42	63,731 75	56,718	132,111
1893-94	211	226,891 06	158,533 83	68,357 23	53,577	123,727
1894-95	211	232,905 19	149,654 71	83,250 41	48,325	125,089

Twelve and three-quarter miles of old iron track were renewed with steel rails weighing 50 lbs. to the yard, so that the track now stands :—

Steel rails (50 lbs. to yard) .....	113 $\frac{3}{4}$
Iron rails (40 lbs. to yard).....	97 $\frac{1}{4}$

Total length of road..... 211

One thousand tons of 50-lb. steel rails have been delivered for renewals of track in 1895-96.

The road and rolling stock are in good running condition.

## CAPITAL ACCOUNT.

## CANADIAN PACIFIC RAILWAY.

I have recently made a trip over the Canadian Pacific Railway from Ottawa to Vancouver, and viewed the work done, and in course of execution under the arbitrators award.

On the division between Savona's Ferry and Emory's Bar, the work is advancing very slowly, but marked improvements in the permanency of the works are observable, and upon the section between Lytton and Spence's Bridge the alignment of the road has been greatly improved, and the amount of the award is being faithfully and profitably employed.

The total award of the arbitrators in favour of the Canadian Pacific Railway Company was..... \$579,255 20

The following statement shows the progress made with the work from time to time :

Amount of work done previous to date of award, July, 1891..... \$202,675 20

Amount of work since done :

From July, 1891, to February, 1892.....	11,966 69	
In February, 1892.....	188 15	
March " .....	9,160 77	
April " .....	16,674 16	
May " .....	16,010 86	
June " .....	21,696 89	
July " .....	21,907 10	
August " .....	19,477 77	
September " .....	21,182 75	
October " .....	22,278 71	
November " .....	12,349 29	
December " .....	4,772 04	
January, 1893 .....	6,183 40	
February " .....	3,873 20	
March " .....	4,014 85	
April " .....	10,815 33	
May " .....	10,445 76	
June " .....	8,329 18	
July " .....	6,269 49	
August " .....	7,889 02	
September " .....	11,954 28	
October " .....	9,398 85	
November " .....	1,920 40	
December " .....	Nil	
January 1894 .....	Nil	
February " .....	84 37	
March " .....	2,026 64	
April " .....	6,108 73	
May " .....	8,455 57	
June " .....	615 20	
July " .....	4,702 91	
August " .....	8,919 75	
September " .....	6,352 62	
October " .....	4,932 97	
November " .....	282 18	
December " .....	212 06	

Carried forward..... 504,127 29 579,255 20

## Department of Railways and Canals.

Brought forward.....	\$504,127 29	\$579,255 20
January, 1895 .. .. .	Nil	
February " .. .	Nil	
March " .. .	Nil	
April " .. .	390 56	
May " .. .	1,387 77	
June " .. .	4,357 23	
July " .. .	4,689 27	
August " .. .	7,615 10	
September " .. .	8,885 20	531,452 42
	.....	.....
Value of balance of work remaining to be done .....		\$ 47,802 78

Apart from this expenditure, I observed throughout the entire line improvements which are being steadily made by the Canadian Pacific Railway Company, giving to their road a solid and permanent character.

The damages caused to the road-way by the freshet in the Fraser and Thompson Rivers in the spring of 1894, have been repaired and the road throughout is in an excellent state of efficiency.

With heavy crops in the north-western section of the country, a large increase in the live stock production for export, the marvellously rapid development of mines in British Columbia, and the improvement in trade which is visible, I am induced to believe that the future earnings of this railway will considerably exceed those realized in the past.

The following are the traffic operations of the Canadian Pacific Railway for each year ended 30th June, since the road first opened through to the Pacific Coast, for traffic, in June, 1886:—

	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.
	Miles, 4,274.	Miles, 4,662.	Miles, 4,974.	Miles, 5,086.	Miles, 5,537.	Miles, 5,537.	Miles, 5,782.	Miles, 6,094.	Miles, 6,159.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Earnings .....	10,650,254 08	12,711,010 01	13,016,611 81	15,572,985 62	18,672,174 04	20,789,104 17	20,795,304 66	19,357,098 05	17,912,273 60
Working expenses.....	7,299,045 16	9,034,360 27	8,997,312 05	9,424,166 45	11,538,133 53	12,441,126 28	12,665,587 12	12,447,808 03	11,282,506 00
Net revenue. ....	\$3,351,208 82	\$3,676,649 74	\$4,019,299 76	\$6,148,819 17	\$7,134,040 51	\$8,347,977 89	\$8,129,717 54	\$6,909,290 02	\$6,629,767 60
No. Passengers carried.....	1,949,215	2,135,735	2,457,306	2,685,730	2,971,774	3,150,684	3,335,598	3,153,340	2,892,985
Tons Freight carried .....	2,118,319	2,321,957	2,636,121	3,006,684	3,675,113	4,058,575	4,266,348	4,014,915	3,720,567

## Department of Railways and Canals.

This road with its vigorous management is proving to be an important element in the prosperity of the country and with its branches spreading out north, south, east and west, it is developing sections, which had it not been for the enterprise of the company, might have remained for years to come without the modern facilities for transportation.

### CAPITAL ACCOUNT—CANALS.

#### SAULT STE. MARIE CANAL.

##### *Construction.*

The section of this canal embracing the lock and prism was completed and ready for traffic on the 30th June, 1895, but the sections at each end of the canal comprising the two approach channels had not been quite completed at the present date, there being certain obstructions in them.

On the 9th September ultimo, however, both channels were free of obstructions for a depth of 17 feet of water, which enabled the canal to be opened for business on that date. The traffic has since been satisfactorily conducted, and 414 vessels have been locked through, aggregating a registered tonnage of 316,132 tons.

The electrical machinery for opening and closing the lock gates, filling and emptying valves, works quickly and well, the lock being filled in seven minutes and emptied in six minutes, the lock gates being opened in less than a minute, thus giving good despatch to vessels using the canal.

Recently a contract has been entered into with Messrs. Miller Brothers for the erection of general offices and a workshop, and they are now engaged in excavating the foundations and delivering the materials.

The engineers are still engaged in working up the final estimates for the lock and prism, and also those for the two channel approaches, which, owing to the amount of detail, have taken a long time to prepare.

The probable cost of the canal and approaches was originally estimated at.....	\$ 4,000,000 00
Amount paid up to 30th June, 1895.	\$3,256,510 21
do from 30th June to 1st October, 1895.....	39,916 14      3,296,126 35
Balance.....	\$ 703,873 65

Appended hereto will be found the report of Mr. William Crawford the engineer in charge, from a perusal of which full information as regards the works can be obtained.

#### SOULANGES CANAL.

The work on this canal has progressed but tardily during the year, and except on sections Nos. 10 and 13, no masonry has yet been built. The four barrelled 10-foot iron cylindrical culvert carrying the "River Rouge" under the canal on section No. 10 is completed; the double barrelled 10-foot iron cylindrical culvert carrying the "Delisle River" under the canal on contract No. 11 is laid in position, and is concreted over; the single barrelled 10-foot iron cylindrical culvert carrying the "La Graise River" under the canal on contract No. 8, is laid in and covered with concrete. There was a mishap to this culvert last winter, by which a number of the cylinders were broken, they have been repaired by the contractor at his own expense.

The only other mechanical work of any importance executed up to date, is the construction and erection of the steel superstructure of the bridge carrying the Canada Atlantic Railway over the canal, and under contract No. 13, the masonry piers and abutments of this bridge, the masonry revetment and concrete revetment walls and cribwork at the upper entrance, and on contracts Nos. 1 and 2 the crib piers at the lower entrance.

The following statement will give a general idea of the progress made with the work up to the 1st September, 1895 :—

Sections Nos. 1 and 2.—Archibald Stewart, contractor.

Approximative value of work under contract.....	\$818,400 00
Amount of progress estimates up to 1st Sept., 1895 ...	340,615 00
Balance .....	<u>\$477,785 00</u>

Section No. 3.—O'Leary Bros., contractors.

Approximate value of work under contract.....	\$191,500 00
Gross amount of progress estimates up to 1st Sept., 1895	130,510 00
Balance... ..	<u>\$ 60,990 00</u>

Sections Nos. 4, 5, 6 and 7.—George Goodwin, contractor.

Approximate value of work under contract.....	\$848,000 00
Gross amount of progress estimates up to 1st Sept., '95	287,005 00
Balance.....	<u>\$560,995 00</u>

Section No. 8.—Charles Raynor, contractor.

Approximate value of work under contract.....	\$240,000 00
Gross amount of progress estimates up to 1st Sept., '95	158,203 00
Balance.....	<u>\$ 81,797 00</u>

Section No. 9.—Randolph McDonald, contractor.

Approximate value of work under contract.....	\$130,000 00
Gross amount of progress estimates up to 1st Sept. '95	85,033 00
Balance .....	<u>\$ 44,967 00</u>

Section No. 10.—Messrs. Rogers & Taylor, contractors.

Approximate value of work under contract.....	\$210,500 00
Gross amount of progress estimates up to 1st Sept., '95	160,306 00
Balance.....	<u>\$ 50,194 00</u>

Section No. 11.—Messrs. Poupore, Fraser & Co., contractors.

Approximate value of work under contract.....	\$255,000 00
Gross amount of progress estimates up to 1st Sept., '95	176,442 00
Balance.....	<u>\$ 78,558 00</u>

Section No. 12.—George Goodwin, contractor.

Approximate value of work under contract.....	\$229,000 00
Gross amount of progress estimates up to 1st Sept., '95	36,617 00
Balance.. ..	<u>\$192,383 00</u>

Section No. 13.—Randolph McDonald, contractor.

Approximate value of work under contract.....	\$480,000 00
Gross amount of progress estimates up to 1st Sept., '95	271,221 00
Balance.....	<u>\$208,779 00</u>

## Department of Railways and Canals.

### Bridge over Canal—Dominion Bridge Company, contractors.

Value of work under contract .....	\$ 10,267 00
Final estimate .....	10,267 00
Balance.....	Nil.

### Cement—C. J. De Sola & Francis Hyde, contractors.

Value of cement under contract .....	\$ 39,655 55
Final certificate .....	39,655 55
Balance.....	Nil.

### Cement—Bellhouse, Dillon & Co., contractors.

Value of cement under contract .....	\$ 49,750 00
Gross amount of progress estimates up to 1st Sept., 1895.....	9,627 00
Balance.....	\$ 40,123 00

### *Summary*

Approximate value of work under contract .....	\$ 3,502,072 00
Amount of estimates of work done up to 1st Sept., 1895.....	1,705,501 00
Balance .....	\$ 1,796,571 00

Based on the above named contracts, the canal is estimated to cost, including land and damages	\$ 4,750,000 00
Total payments up to 1st October, 1895.....	1,899,535 16
Balance.....	\$2,850,464 84

At the lower entrance to the canal on sections Nos. 1 and 2, there were four locks to be built, each with a lift of 17' 6", the superintending engineer suggested that a three-lock system with a lift of 23' 4" for each lock would be preferable to the four-lock system, both as regards the cost of construction, maintenance and operation, in which view the chief engineer concurred.

Messrs. Walter Shanley and Thos. C. Keefer were called in as consulting engineers, and after carefully looking into the matter, reported very strongly in favour of the three-lock system in preference to the four-lock system, upon which an Order in Council was passed authorizing the change, which will be made without any increase in the schedule of prices.

It will probably be three years at least before the canal is completed and ready for traffic, the building of these three locks is the key to the whole, as they will occupy a greater length of time to construct than any other part of the work on the canal remaining to be done.

## LACHINE CANAL.

### CONSTRUCTION AND ENLARGEMENT.

The works being carried on under the above heading are:—

1. Dredging between the lower entrance to the Lachine Canal and St. Gabriel Basin for 22 feet of water.

2. The deepening of the prism of the Lachine Canal between St. Gabriel and Lachine to a depth of 16 feet.

3. The widening of the Lachine Canal on the south side and building a crib breast wall at a point between the Wellington-street Bridge and St. Gabriel.

The dredging between the lower entrance and St. Gabriel is being executed by days' labour with the Government dredge No. 2, the work is progressing favourably, but unless additional dredging power is employed, it will occupy two seasons more to complete the work.

The deepening of the prism of the canal between St. Gabriel and Lachine is under contract with Messrs. McNamee & Mann. They have been working both by day and night, and are making favourable progress with the work.

The widening of the Lachine Canal on the south side between Wellington Bridge and St. Gabriel, is being executed by the Government dredge, and the cribwork is being built under contract with Messrs. Gaherty & Shearer. The dredging is nearly completed and 100 feet of the cribwork is ready to sink in position.

For full particulars of the operations up to 30th June, 1895, I refer you to the report of the Superintending Engineer.

### LAKE ST. LOUIS.

The cutting of a straight channel 300 feet wide with a depth of 16 feet of water for a distance of about 4 miles is being executed by the Weddell Dredging Co. They have two dredges at work, one of which is a very fine, powerful machine, which handles the rock without blasting and with little difficulty. The other dredge is working in the clay and is doing good service; they have executed work to the value of \$16,818.83 up to the 1st September, 1895. This work will occupy at least two more seasons to complete.

### TRENT VALLEY CANAL.

#### CONSTRUCTION.

The first section of 6½ miles of the Peterborough-Lakefield Division, extending from Lakefield towards Peterborough, is under contract with Messrs. Brown, Love & Aylmer. They commenced work at the beginning of September ultimo, and are making fair progress, but no progress estimates have yet been issued in their favour.

This section is estimated to cost \$420,000.

The surveys and plans for the second section extending from the end of the work under contract with Messrs. Brown, Love & Aylmer to Peterborough, have been completed, and the official land appraisers are about to proceed with their work of valuing.

A contract was entered into with Mr. Andrew Onderdonk for the first section of 6½ miles of the Balsam-Simcoe Lake Division, extending from Balsam Lake towards Lake Simcoe, the cost of which is estimated at \$600,000. The lands have all been valued and the work is now progressing rapidly. The gross amount of the progress estimates up to 1st September, 1895, is \$36,874.94.

The surveys and plans for the balance of the division, about 13½ miles, are far advanced towards completion. On the contract let to Mr. Andrew Onderdonk, there is a lift lock with a lift of about 60 feet, the lift is to be made by an hydraulic ram.

The size of the locks on this canal are to be 134 feet long, 33 feet wide, with 5 feet of water on the mitre sills, and the prism of the canal will be 50 feet wide at bottom, and 53 feet wide at water level.

### MURRAY CANAL.

#### EQUIPMENT.

No work has yet been done towards building lockmasters' houses, store or wharf, &c., for which provision was made by Parliament.



## Department of Railways and Canals.

### CORNWALL CANAL.

#### CONSTRUCTION AND ENLARGEMENT.

These works with the exception of the waste weir at the Sheiks Island Dam are fast drawing to a close, and are in such an advanced condition that the Sheiks Island Dam section of the canal will be in a condition to utilize for traffic next spring.

The estimated cost of the enlargement is.....\$ 4,000,000  
 Amount paid up to 1st October, 1895..... 3,522,571

Balance..... \$ 477,429

The contractors have been paid the following amounts up to 1st October, 1895:—

Section 2, William Davis & Sons.....	\$ 732,280
do 3 do .....	432,265
do 4 do .....	482,943
do 5, E. Gilbert & Sons.....	104,219
Sheiks Island Dams, Wm. Davis & Sons .....	269,200
Section 6, E. Gilbert & Sons.....	47,721
do 7 do .....	96,832
do 8 do .....	184,736
do 10, Jocks, DeLorimier & Co.....	428,210

Total.....\$ 2,778,406

### FARRAN'S POINT CANAL.

#### CONSTRUCTION.

No work has yet been placed under contract for its enlargement, but the surveys are completed and plans prepared for the work.

### RAPIDE PLAT CANAL.

#### ENLARGEMENT.

The work on section No. 1 of this canal has made favourable progress, the lock masonry of the lock at Morrisburg being far advanced towards completion, the contractors having completely mastered the difficulties which they had encountered, and which were referred to in my last year's report. The work of widening and deepening the canal on sections 1 and 3 is making fair progress; the work on section No. 2, which was under contract with the Weddell Dredging Company, is completed.

The estimated cost of the enlargement is.....\$ 1,600,000  
 Amount paid up to 1st October, 1895..... 1,298,789

Balance..... \$ 301,211

The following is a list of the names of the contractors showing the amounts paid to each up to 1st October, 1895:—

Section No. 1, Poupore & Fraser & Co.....	\$ 509,450
do 2, Weddell Dredging Co.....	198,534
do 3, Poupore, Fraser & Co.....	180,150
do 4, Wm. Broder.....	271,141

Total.....\$ 1,159,275

## GALOPS CANAL.

## ENLARGEMENT.

Messrs. Murray & Cleveland, the contractors for the work on the first  $1\frac{1}{2}$  miles at the upper entrance of the canal, embracing the building of two locks, a weir and the deepening and widening of the prism, are the only persons carrying on works of enlargement on this canal, at the present time.

The work under this contract should be completed in the season of 1896. The lift lock and guard lock are completed, and the weir is nearly finished, but there remains about a season's work in dredging to be done.

With a view to facilitating navigation on this section of the St. Lawrence River, the Honourable Minister has given instructions to, at once, have the mitre sill removed from the old guard lock and the dredging to be done at the points necessary to enable vessels to use the new lock.

The estimated cost of this section of the enlargement is,	\$ 1,500,000
Amount paid up to 1st October, 1895.....	1,302,424
	<hr/>
Balance.....	\$ 197,576
	<hr/> <hr/>

The contractors' names and the amounts paid them up to 1st October, 1895, are as follows, viz. :—

William Allan.....	\$ 193,652
Murray & Cleveland... ..	1,025,670
	<hr/>
Total.....	\$1,219,322
	<hr/> <hr/>

## GALOPS RAPID IMPROVEMENTS.

These works remain untouched since my report of last year.

Names of contractors who performed the work and amounts paid up to 1st October, 1895:—

Wm. Davis & Sons .....	\$ 22,000
E. Gilbert & Sons.....	607,629
	<hr/>
Total.....	\$649,629
	<hr/> <hr/>

There remain from 2,000 to 3,000 cubic yards of rock in the channel which require moving to give a clear navigation for 14 feet draught or 17 feet depth of water.

## NORTH AND SOUTH CHANNELS.

No steps have yet been taken towards straightening and deepening either of these channels.

## ST. PETER'S CANAL.

No work on capital account has been undertaken on this canal during the year ended 30th June, 1895.

## CANALS.

## OPERATION AND MAINTENANCE—GENERAL.

The canals have been operated throughout the year without any serious delay to traffic, and the necessary repairs have been executed to maintain them in efficient working condition.

## Department of Railways and Canals.

### STATEMENT showing the dates of closing and opening of Canals.

	Closed.	Opened.
Lachine.....	30th November, 1894....	30th April, 1895.
Beauharnois.....	30th November, 1894....	1st May, 1895.
Cornwall.....	8th December, 1894....	29th April, 1895.
Williamsburg.....	10th December, 1894....	23rd April, 1895.
Welland.....	11th December, 1894....	20th April, 1895.
Chambly.....	30th November, 1894....	1st May, 1895.
St. Ours.....	26th November, 1894....	15th April, 1895.
St. Ann's.....	25th November, 1894....	27th April, 1895.
Carillon and Grenville.....	30th November, 1894....	29th April, 1895.
Rideau { At Kingston.....	19th November, 1894....	30th April, 1895.
{ At Ottawa.....	26th November, 1894....	27th April, 1895.
Trent { On Central Reach.....	23rd November, 1894....	26th April, 1895.
{ On Lower Reach.....	24th November, 1894....	21th April, 1895.
Murray.....	30th November, 1894....	19th April, 1895.
St. Peter's.....	15th December, 1894....	Not reopened up to date of this report.

### STATEMENT showing the dimensions of the Locks of the Canals.

Name of Canal.	EXISTING SYSTEM.				UNDER CONSTRUCTION.			
	No. of Locks.	Length.	Width.	Depth of water on mitre sills.	No. of Locks.	Length.	Width.	Depth of water on mitre sills.
Lachine.....	5	270	45	14				
Beauharnois.....	9	200	45	9				
Chambly.....	9	118to125	22 6	7				
St. Ours.....	1	200	45	7				
St. Anne's (new).....	1	200	45	9				
Carillon and Grenville.....	7	200	45	9				
Culbute.....	2	200	45	5				
Trent.....	13	134	53	5				
Rideau.....	49	134	33	5				
do Perth branch.....	2	134	32	5 6				
Murray.....		No locks.		11				
Cornwall (old).....	3	200	55	9	6	270	45	14
do (new).....	3	270	45	14				
Williamsburg.....	6	200	45	9	6	270	45	14
Welland (new).....	26	270	45	14				
Welland (old).....	24	150	45	10 3				
	2	200	45	10 3				
	1	230	45	10 3				
Welland Feeder.....	1	150	26 6	9				
	1	200	45	9				
Welland (Port Robinson branch).....	2	150	26 6	9				
do (Maitland branch).....	1	185	45	11				
Sault Ste. Marie.....	1	900	60	20 3				
Soulanges.....					4	270	45	14
St. Peter's.....	1	200	48	18				

## LACHINE CANAL.

## OPERATION.

The traffic on this canal was conducted satisfactorily during the year, and without interruption to traffic.

## MAINTENANCE.

For particulars of the repairs during the year, I must refer you to the Superintending Engineer's report.

The cost of these repairs for the year 1894-95 amounts to as follows:—

Ordinary repairs under head of staff and repairs. .... \$25,891 45

Special repairs under head of income:—

Construction of workshops, sheds, &c.,

Montreal..... \$10,139 94

Enlargement of electric light stores,

Montreal..... 1,983 84

To pay land damages from leakages..... 13,189 50

Repairs to breakwater..... 528 72

25,842 00

Total..... \$51,733 45

## BEAUHARNOIS CANAL.

## OPERATION.

No accident occurred on this canal during the year and the traffic was uninterrupted.

## MAINTENANCE.

The necessary repairs have been executed during the year, of which the following is a statement:—

The cost of repairs for the year 1894-95 amounted to as follows:—

Ordinary repairs under head of staff and repairs..... \$12,299 49

Special repairs under head of income:—

Building steel bridge, constructing  
coffer-dam and repairs of sills and  
platforms at lock 14, Valleyfield..... \$10,658 91

Renewing foundations of swing bridge  
and guard lock.. ..... 1,333 75

Building drain at Grande Isle, Valley-  
field..... 10,200 00

Renewing masonry of nine locks..... 1,552 15

Rebuilding bridge at Lost Channel, St.  
Timothy..... 4,091 62

Damages by overflow..... 55 00

27,891 43

Total..... \$40,184 92

# Department of Railways and Canals.

## CHAMBLY CANAL.

### OPERATION.

On the 10th September, 1894, an interruption to navigation for fourteen hours occurred by reason of the lower gate of the lower entrance lock giving way, otherwise the traffic during the year was satisfactorily conducted.

### MAINTENANCE.

The canal works have received the necessary attention as regards their maintenance during the year.

The cost of the repairs executed during the year 1894-95 is as follows, viz. :—

Ordinary repairs under head of staff and repairs.....	\$11,779 12
Special repairs under head of income:—	
Building fencing in front of farms along canal.....	\$ 745 33
Building rubble masonry wall along high-way. ....	2,499 42
Rebuilding lock walls.....	5 25
To pay timber account of Hurteau & Frère do for land taken from A. Yule and A. F. Riddell.....	1,937 15
	960 48
	<hr style="width: 100%; border: 0.5px solid black;"/>
	6,147 63
Total.....	<hr style="width: 100%; border: 0.5px solid black;"/> <u>\$17,926 75</u>

## ST. OURS LOCK.

### OPERATION.

No damage to lock or delay to navigation occurred during the year.

### MAINTENANCE.

The necessary repairs have been executed. The cost of the work during the year was as follows, viz. :—

Ordinary repairs under head of staff and repairs, \$915.50.

There were no special repairs provided for in the parliamentary appropriations.

## ST. ANNE'S LOCK.

### OPERATION.

The navigation through this lock has not been interrupted during the year.

### MAINTENANCE.

The lock has been maintained in good working condition. The cost of the work during the year is as follows, viz. :—

Ordinary repairs under head of staff and repairs ..... \$3,025 91

Special repairs under head of income:—

Repairs to south channel piers.....

Building one pair of lock gates.....

Repairing lock.....

---

  
3,694 33

Total ..... \$6,720 24

## CARILLON AND GRENVILLE CANALS.

## OPERATION.

The navigation has been worked without interruption during the year and the canal works have received the necessary repairs.

## MAINTENANCE.

The following is a statement of the works of repairs executed during the year:—

The cost of the repairs amounted to as follows, viz.:—

Ordinary repairs under head of staff and repairs.....	\$12,303 25	
Special repairs under head of income:—		
Repairs to canal bank.....	\$1,495 23	
Rebuilding north abutment of swing bridge at guard lock at Grenville.....	4,468 53	
		5,963 76
Total.....		<u>\$18,267 01</u>

## CULBUTE CANAL.

## OPERATION.

This canal was only worked during the season of navigation 1894—it was closed and abandoned on the 2nd November, 1894, and the services of the employees were dispensed with; the Grand Calumet Dam was partially removed to give a freer flow to the water.

The following is a statement of the expenditure on this canal during the year:—

Staff and repairs.....	\$ 434 28
Special under head of income:—	
Removing obstructions and land damages.....	1,475 26
Total.....	<u>\$ 1,909 54</u>

## TRENT CANAL.

## OPERATION.

There were 3,670 lockages during the year and there was no interruption to navigation. The canal works were well maintained.

## MAINTENANCE.

The cost of the works of repairs for the year was as follows, viz.:—

Ordinary repairs under head of staff and repairs.....	\$3,374 49
Special work under head of income:	
Dredging, &c.....	\$ 8,301 83
Making cut at mouth of Scugog River.....	476 40
Building swing bridge at Trent Narrows....	8,500 00
Rebuilding Rosa's bridge over Otonabee River.....	2,500 00
Sluiceway in Healy's Dam.....	1,169 20
Fishway at Bobcaygeon.....	195 98
	21,143 41
Total.....	<u>\$24,517 90</u>

# Department of Railways and Canals

## RIDEAU CANAL.

### OPERATION.

Owing to the extremely low water, the navigating of this canal has been attended with some difficulty, there being only about 4' 4" depth of water in certain sections of the canal. The Perth Branch was closed to navigation from 9th to 30th July, 1894, owing to the upper gates of the lower lock having been run into and damaged by the steamer "Rideau Belle."

### MAINTENANCE.

The canal has been maintained in efficient state of repair.

The cost of the repairs was as follows, viz. :—

Ordinary repairs under head of staff and repairs.....	\$19,897 32
Special repairs under head of income:	
Sheet piling side of Deep Cut.. .....	\$ 9,998 20
Building ice breaker at Hogs Back.....	560 33
Rebuilding Lorne Bridge.....	5,560 52
Rebuilding lock wall at lock No. 4.....	1,997 90
Rebuilding bridge Green Bay Road.....	591 30
Building swing bridge at Jones' Lock, Smith's Falls.....	2,851 23
Paid for land damages .....	10,000 00
	<hr/>
	31,559 48
Total.....	<hr/> <hr/> \$51,456 80

## MURRAY CANAL.

### OPERATION.

This canal was operated during the year without interruption, and 673 vessels passed through.

### MAINTENANCE.

The canal works have been maintained in efficient condition.

The cost of repairs was as follows :—

Ordinary repairs under head of staff and repairs .....	\$5,063 49
Special repairs under head of income.....	Nil.
Total.....	<hr/> <hr/> \$5,063 49

## CORNWALL CANAL.

### OPERATION.

Navigation has been fairly maintained, considering the inconvenience arising from the prosecution of the works of enlargement; except as regards a serious detention to traffic occasioned by the steamer "Ocean" knocking out the gates of

lock No. 17. This accident which occurred on the 19th of June, 1895, caused a stoppage of navigation for four days, the damage done to the canal amounting to about \$5,000.

#### MAINTENANCE.

The necessary repairs to the canal works have received due attention.

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

Ordinary repairs under head of staff and repairs.....	\$13,053 55
Special repairs under head of income :—	
Building Cornwall sewer.....	\$14,000 00
Telephone line .....	2,450 00
Repairing old locks Nos. 15 and 17.....	4,647 74
	21,097 74
Total.....	\$34,151 29

#### WILLIAMSBURG CANALS.

##### OPERATION.

No serious accident or unusual interruption has occurred on these canals (Galops, Iroquois Junction, Rapide Plat and Farran's Point) during the year, and the traffic has been conducted in a fairly satisfactory manner, considering the lowness of the water in the river and notwithstanding the works of enlargement in progress.

##### MAINTENANCE.

The canal works have been maintained in a good state of repair. The cost of repairs during the year has been as follows, viz. :—

Ordinary repairs under head of staff and repairs.....	\$7,371 37
Special repairs under head of income :—	
Piers at Farran's Point.....	\$7,060 36
Lower gates at lock 22.....	3,160 00
To renew superstructure of pier lock 26....	3,500 00
	13,720 36
Total.....	\$21,091 73

#### WELLAND CANAL.

##### OPERATION.

The only accident of any importance which occurred during the year was the carrying away of four gates of lock 22 and one gate of lock 21 by the steamer "Jack" on the 9th of May, 1895, which caused a delay to traffic of 4½ days. The damage was estimated at \$5,000. The canal has been worked during the year by the reduced staff in a satisfactory manner.



# Department of Railways and Canals.

## MAINTENANCE.

The canal works have been maintained in an efficient state of repair.

The cost of repairs during the year has been as follows, viz. :—

Ordinary repairs under head of staff and repairs.....	\$48,270 94
Special repairs under head of income :—	
Rebuilding in concrete superstructure	
Dalhousie pier. ....	\$13,869 14
Cleaning out and deepening back ditch south side of feeder.....	2,321 43
Forming outlet for drainage at Feeder Jct.	1,160 30
Taking down and rebuilding Hoover's Culvert.....	1 37
Taking down and rebuilding wall of race-way lock 25.....	1,962 50
Cleaning and deepening back ditch north side of feeder.....	1,751 21
Drain on John Charleston's property.....	26 75
Claim of North Cayuga Township for damage to road by floods.....	567 00
	21,659 70
Total.....	\$69,930 64

## ST. PETER'S CANAL.

### OPERATION.

From 30th June, 1894, to 15th December, 1894, the navigation on this canal was uninterrupted, since that date it has been closed for renewal of lock gates and floor.

### MAINTENANCE.

The repairs on this canal were very heavy and costly, as owing to the ravages of the sea-worm, it became necessary to renew the timber floor and the lock gates, which work necessitated the formation of a dam at each end of the canal; the work was being executed under contract with Mr. Sylvester O'Donaghue, but owing to unforeseen difficulties arising in unwatering the canal, he intimated his inability to complete the work under his contract, and it is being carried on by the Government.

The cost of repairs during the year has been as follows, viz. :—

Ordinary repairs under head of staff and repairs.....	\$ 353 55
Special repairs under head of income :—	
Reconstructing west wall .....	\$ 10 68
Renewing mitre sills, floor and lock gates.	26,092 18
	26,102 86
Total .....	\$26,456 41

The supplies and materials have, as a rule, been purchased by tender and contract and are only issued upon requisition of the authorized officer, and books are kept of the receiving of the goods, and their issue, and the articles in the storehouse are kept in much better order than formerly.

Cost of maintenance of the canal system for 1894-95.	\$506,280 31
Net revenue of canals after deducting refunds.....	339,890 49
	Loss..... \$166,389 82

## RAILWAY SUBSIDIES.

I submit herewith a statement showing the amount of cash subsidy granted per mile available, and amount paid up to 30th June, 1895; also the number of miles of railway on which subsidy granted per mile was available on 1st July, 1895, and the number of miles of railway for which cash subsidy per mile was granted, built up to 30th June, 1895. There will also be found the amount of subsidy paid up to 1st October, 1895.

There also appears a statement of the cash subsidy per annum available and also paid up to 30th June, 1895, with number of miles built, also a statement showing the railways which have been granted aid in land.

Amount of cash subsidy per mile available 30th June, 1895 .....	\$ 8,486,636 53
Amount of cash subsidy per mile paid 30th June, 1895 .....	13,584,831 34
<b>Total available and also paid.....</b>	<b>\$22,071,467 87</b>

Number of miles of railway on which cash subsidy per mile was available up to 30th June, 1895 .....	2,003
Number of miles of railway on which cash subsidy per mile was paid up to 30th June, 1895.....	3,071
Amount of subsidy paid up to 1st October, 1895...	\$13,645,823 34
Cash subsidy per annum available on 30th June, 1895.....	\$ 363,474 00
Cash subsidy per annum paid on 30th June, 1895.	\$ 1,119,600 00
Number of miles built on cash subsidy per annum up to 30th June, 1895.....	252
Number of miles of railway to which aid in land is granted .....	4,463
Number of acres of land granted in aid of railways	32,257,200

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

These roads received:—

Canadian Pacific Railway.....	\$25,000,000
Canada Central Railway .....	1,525,250
Esquimalt and Nanaimo Railway.....	750,000
	<b>\$27,275,250</b>

The foregoing statement of land grant does not include the Canadian Pacific Railway or the Esquimalt and Nanaimo Railway.

These roads received:—

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

## Department of Railways and Canals.

### CANAL STATISTICS.

These statistics were compiled by Mr. R. Devlin, the clerk temporarily in charge; they are for the season of navigation 1894 and contain the usual interesting information.

TABLE showing the tons of freight passing through each canal, the tolls collected, the number of trips of vessels passing through each canal, for the year ended 31st December, 1894.

Name of Canal.	Tons of Traffic passing through.	Tolls collected.	Number of trips of vessels passing through.
Lachine.....	886,778	63,005 43	8,545
Beauharnois..			
Cornwall.....			
Williamsburg.)			
Welland.....	1,008,221	159,694 19	2,412
Chambly.....	277,608	21,149 65	2,492
St. Ann's )	562,010	34,042 78	2,197
Carillon.. )			
Grenville )			
Rideau.....	94,479	5,836 39	3,490
Murray.....	21,888	756 20	690
Trent.....	36,271	1,009 23	1,810
St. Peter's.....	55,460	2,637 14	1,522

### RAILWAY STATISTICS.

The hopes and expectations expressed in my last year's report that the railway companies would in future send in their statistical returns on or before the 1st October in each year, have not been realized, for whilst the great trunk lines and many others forwarded their returns with commendable promptness, there are a large number who are delinquents as regards the despatching of their reports, for through this my annual report is dated the 30th September, 1895. I am at this time, 11th October, delaying the completion of this report, hoping the delinquent companies may without further delay, after my secretary, Mr. L. K. Jones, who is calling upon them, send in their returns.

TABLE showing the growth of the Railways from year to year, since the opening of the first line in 1837.

Year.	Miles in Operation.	Year.	Miles in Operation.
1836.....	0	1866.....	2,150
1837.....	16	1867.....	2,258
1838.....	16	1868.....	2,269
1839.....	16	1869.....	2,497
1840.....	16	1870.....	2,497
1841.....	16	1871.....	2,497
1842.....	16	1872.....	2,508
1843.....	16	1873.....	2,638
1844.....	16	1874.....	2,642
1845.....		1875.....	4,826
1846.....		1876.....	5,157
1847.....	59	1877.....	5,574
1848.....	59	1878.....	6,143
1849.....	59	1879.....	6,484
1850.....	71	1880.....	6,891
1851.....	93	1881.....	7,260
1852.....	212	1882.....	7,530
1853.....	423	1883.....	8,086
1854.....	657	1884.....	9,576
1855.....	855	1885.....	10,149
1856.....	1,296	1886.....	10,697
1857.....	1,428	1887.....	11,691
1858.....	1,654	1888.....	12,162
1859.....	1,997	1889.....	12,628
1860.....	2,087	1890.....	13,256
1861.....	2,087	1891.....	14,009
1862.....	2,110	1892.....	14,588
1863.....	2,110	1893.....	15,020
1864.....	2,145	1894.....	15,627
1865.....	2,145	1895.....	15,977

## FATAL ACCIDENTS for Year ended 30th June, 1895.

	Passengers Killed.	Employees Killed.	O. hers Killed.	Total Killed.
Falling from cars or engines.....	1	17	7	25
Getting on or off trains in motion.....	7	1	12	20
At work making up trains.....		3		3
Coupling cars.....		9		9
Collusions and derailments.....	1	5		6
Striking bridges.....			1	1
Walking or being on track.....		6	85	91
Explosions.....				
Other causes.....		10	22	32
Total.....	9	51	127	187

## Department of Railways and Canals.

The summary of tables for the years ended 30th June, 1894, and 30th June, 1895, is as follows, viz. :—

	Comparative Statement,	
	30th June, 1894	30th June, 1895
Miles of railway completed (track laid).....	15,768	16,091
do sidings.....	2,017	2,054
do iron rails in main line.....	400	346
do steel do.....	15,368	15,745
do do do double track.....	526	533
Capital paid (including the four following items).....	887,975,020	894,640,559
Government bonuses paid.....	156,716,638	158,621,646
do loans paid.....	21,569,149	21,569,149
do subscriptions to shares paid.....	300,000	300,000
Municipal aid paid.....	14,153,611	14,180,686
Miles in operation.....	15,627	15,977
Earnings.....	49,552,528	46,785,487
Working expenses.....	35,218,433	32,749,669
Net earnings.....	14,334,095	14,035,818
Passengers carried.....	14,462,498	13,987,580
Freight carried (tons).....	20,721,116	21,524,421
Train mileage.....	43,770,029	40,661,890
Passengers killed.....	12	9
Number of elevators.....	59	53
do guarded level crossings.....	135	151
do unguarded do.....	9,869	10,430
do overhead bridges.....	406	398
do level crossings of other railways.....	212	218
do junctions with other railways.....	313	316
do do branch lines.....	215	232
do engines owned.....	1,965	1,948
do do hired.....	37	75
do sleepers and parlour cars owned.....	154	156
do do do hired.....	45	60
do first class cars owned.....	961	1,011
do do do hired.....	31	65
do second class and immigrant cars owned.....	665	694
do do do do hired.....	5	8
do baggage, mail and express cars owned.....	626	1,129
do do do do hired.....	10	25
do cattle and box freight cars owned.....	32,758	33,577
do do do do hired.....	3,094	2,783
do platform cars owned.....	14,589	15,441
do do do do hired.....	315	317
do coal and dump cars owned.....	4,685	4,841
do do do do hired.....	14	4

I have attached as an appendix to this report a memorandum on railway progress in the Dominion of Canada and its beneficial effect on the economic development of the country, &c., by the Honourable Sir Charles Tupper, Bart., K.C.M.G., C.B., High Commissioner for Canada in London, as it appears to me to contain much useful information which is of great interest to the public.

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

COLLINGWOOD SCHREIBER,  
*Chief Engineer of Railways and Canals.*

J. H. BALDERSON, Esq.,  
Secretary, Department of Railways and Canals,  
Ottawa.

APPENDIX No. 5.

INTERCOLONIAL RAILWAY OF CANADA,  
OFFICE OF THE GENERAL MANAGER,  
MONCTON, N.B., September, 1895.

SIR,—I have the honour to submit the following report on the working of the Intercolonial Railway during the fiscal year ended 30th June, 1895.

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

- No. 1. Capital account.
- 2. Revenue account.
- 3. Locomotive power.
- 4. Car expenses.
- 5. Maintenance of way and works.
- 6. Station expenses.
- 7. General charges.
- 8. General stores account.
- 9. General balance.
- 10. Comparative statement of averages.
- 11. Special votes.

The mileage of railway in operation during the year was the same as stated in last year's report, 1,142 miles.

CAPITAL ACCOUNT.

The cost of road and equipment on the 30th June, 1894, by last report was..... \$54,680,904 89

The additions during the year were as follows:—

Increased accommodation at Halifax.....	\$122,708 28
do do at Moncton....	7,494 17
do do at Ferrona Jet.....	1,981 57
Construction.....	1,920 18
St. Charles Branch.....	890 65
Inian Town branch.....	1,291 07
Dartmouth branch.....	118,153 94
Rolling stock.....	9,984 24
Oxford and New Glasgow and Cape Breton Railways.....	62,610 41
	327,034 51

Making the total cost on the 30th June, 1895. \$55,007,939 40

*Increased accommodation at Halifax.*—This expenditure is chiefly in payment for land acquired for the increased freight accommodation to be provided there. Work was commenced on a retaining wall, and on the foundation of a freight house, some grading and track laying were also done.

*Increased accommodation at Moncton.*—This is for providing new machinery for the work-shops.

*Increased accommodation at Ferrona Junction.*—This is for additional land and sidings.

## Department of Railways and Canals.

*Construction.*—This is for the settlement of small land claims in connection with the original construction of the railway.

*St. Charles Branch.*—This is for interest on a land claim and for legal expenses.

*Indian Town Branch.*—This is for expenses in connection with a contractor's claim on account of the construction of the branch.

*Dartmouth Branch.*—This is for expenditure on account of the construction of a branch line from Windsor Junction to Dartmouth. The length of line to be built is eleven miles. For construction purposes it was divided into two sections, and the contract for one section was given to Thomas Cooke, New Glasgow, and for the other to D. McGregor & Son, New Glasgow. Work was commenced in January, 1895, and has been steadily prosecuted ever since.

*Rolling Stock.*—This is for the Westinghouse air brake for freight cars. The total number of cars now equipped with this brake is nine hundred and seventy-one.

*Oxford and New Glasgow and Cape Breton Railways.*—This consists of payments of claims and of legal expenses in connection with the construction of these lines.

### REVENUE ACCOUNT.

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

Gross earnings.....	\$2,940,717 95
Working expenses.....	2,936,902 74
	\$ 3,815,21

Parliament during the session of 1894 granted a compassionate allowance of \$12,000 to the sufferers by the accident which happened at St. Joseph, near Lévis, in 1890, and of this sum \$11,898.17 were paid during the year, also \$1,500.00 voted by Parliament to Mr. Martin for injuries sustained some years ago. These two sums amounting to \$13,398.17 were charged against the revenue account and increased the expenditure to \$2,950,500.91.

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

In 1893-94.....	\$2,987,510 27
In 1894-95.....	2,940,717 95
	\$ 46,792 32

The earnings from passenger traffic compare as follows:—

In 1894-95 .....	\$ 963,914 44
In 1893-94 .....	958,915 13
	\$ 4,999 31

The earnings from freight traffic compare as follows:—

In 1893-94.....	\$1,834,126 34
In 1894-95.. .....	1,782,608 54
	\$ 51,517 80

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

In 1894-95.....	\$ 194,194 97
In 1893-94.....	194,468 80
	\$ 273 83

The earnings per mile of railway compare as follows:—

In 1893-94.....	\$	2,616 03
In 1894-95.....		2,575 06

The earnings per train mile compare as follows:—

		Cents.
In 1894-95.....		73·53
In 1893-94.....		71·08

There was a decrease in earnings from freight traffic and a small increase in earnings from passenger traffic.

The number of passengers carried compares as follows:—

In 1894-95.....	1,352,667
In 1893-94.....	1,301,062
	<u>51,605</u>

There was an increase of 56,257 in the number of local passengers and a decrease of 4,652 in the number of through passengers.

The weight of freight carried compares as follows:—

		Tons.
In 1893-94.....		1,342,710
In 1894-95.....		1,267,816
		<u>74,894</u>

This decrease was in both the local and through freight; 64,740 tons in local freight and 10,154 tons in through freight.

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

Articles.	1893-1894.	1894-95.	Increase.	Decrease.
Barrels of flour.....	944,967	938,351		6,616
Bushels of grain.....	1,304,684	1,036,384		268,300
Lumber in superficial feet.....	200,507,949	202,247,269	1,739,320	
Head of live stock.....	79,203	72,106		7,097
Coal in tons.....	478,691	385,200		93,491
Manufactured goods in tons.....	331,635	350,056	18,421	
All other articles in tons.....	146,168	155,477	9,309	

#### WORKING EXPENSES.

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

In 1893-94.....	\$2,981,671 98
In 1894-95.....	2,936,902 74
	<u>\$ 44,769 24</u>



## Department of Railways and Canals.

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

Per mile run by engines—

	Cents.
In 1894-95.....	60·16
In 1893-94.....	57·99

Per mile run by trains—

In 1894-95.....	73·43
In 1893-94.....	70·94

Expenditure per mile of railway—

In 1893-94.....	\$2,610 94
In 1894-95.....	<u>2,571 71</u>

The permanent way and structures and all the works of the railway received the repairs necessary to keep them in good order and in a state of efficiency.

The number of ties renewed was 261,520. One hundred and forty-seven miles of the track were reballasted, twenty-five miles of the track were relaid with new and heavier steel rails, weighing 67 pounds to the yard, and two and a quarter miles of new sidings were laid at various places.

The bridges on all parts of the line received careful attention and repairs. On the line between New Glasgow and Mulgrave two steel bridges of eighty-foot span each and one of hundred feet span were put in to replace wooden ones. A steel bridge of forty feet span and masonry abutments were also put in at Union.

The fences received necessary repairs, and forty-seven miles of new fences were built.

The snow sheds and snow fences were repaired, and 11,396 lineal feet of snow fences were built.

The buildings on all parts of the line received necessary repairs, and the round house at Rivière du Loup which was destroyed by fire on the 20th of October, 1894, was rebuilt.

The wharfs at various places received necessary repairs, and some work was done towards rebuilding the wharfs at Halifax destroyed by fire on the 27th February, 1895.

Twenty-five semaphore signals were erected at various stations.

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

Two heavy locomotives for freight service were purchased, and two smaller and lighter locomotives which they replaced were taken out of service. Four locomotives were entirely rebuilt.

Five first-class passenger cars, four express and baggage cars, forty platform cars, and one snow plough, were purchased; and two platform cars, eleven large coal cars, sixty-seven hopper cars, and seven snow ploughs were rebuilt in the shops.

The water service was well maintained and a new tank and water supply were provided at Little Metis.

### STORES.

The value of stores purchased was.....	\$ 963,407 28
The value of stores used was.....	1,230,723 79
The value of old material sold was .....	<u>90,122 34</u>

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

Ordinary stores including fuel.....	\$ 357,497 54
Iron and steel rails and fastenings.....	260,491 22
Old material for sale.....	<u>73,358 54</u>
Total.....	<u>\$ 691,347 30</u>

## GENERAL.

The winter of 1894-95 like the previous one was severe and the cost of clearing snow and ice was heavy, amounting to \$64,000.

The railway sustained great loss by fire during the year :—

At Rivière du Loup on the 20th October, 1894, the engine house for locomotives, a large brick building with a turntable in the centre, took fire accidentally and was destroyed. There were eleven locomotives in the building at the time, three were taken out without damage before the fire reached them, the other eight were burned in the building. The house was rebuilt at a cost of \$6,363.18, and the locomotives were repaired at a cost of \$10,981.11.

At Halifax on the 27th February, 1895, a fire started in the freight shed on the wharf for European traffic, and entirely destroyed the shed and wharf, also an elevated trestle work for shipping coal, and twenty-seven freight cars, it spread to the grain elevator situated at some distance and consumed it. The property destroyed cost over \$200,000.

At Richmond, Halifax, on the 19th May, 1895, a fire broke out on one of the wharfs in a freight shed where some cattle were stored. This fire destroyed the wharf, two freight sheds, an elevated trestle work for shipping coal and thirty-eight freight cars. The property destroyed cost about \$100,000.

The work of rebuilding all this property is going on.

I have the honour to be, sir,

Your obedient servant,

D. POTTINGER,

*General Manager, Government Railways.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Railways and Canals.

Department of Railways and Canals.

No. 1.—INTERCOLONIAL RAILWAY.

CAPITAL ACCOUNT, Year ended 30th June, 1895.

CR.

DR.

1894.		\$	cts.	1894.		\$	cts.
June 30.	To Cost of Intercolonial Ry. to date.....	47,488	016 82	June 30.	By Dominion of Canada.....	54,680	904 89
	do Eastern Extension Ry. to date.....	1,324	042 81				
	do Oxford and New Glasgow Ry. to date.....	1,945	497 69				
	do Cape Breton Ry. to date.....	3,859	884 54				
	do Train Ferry at Strait of Canso.....	63,463	03				
						54,680	904 89
	To Expenditure for current year :—						
	Intercolonial Railway :—						
	Increased accommodation, Halifax.....	122,708	28				
	do do Moncton.....	7,494	17				
	do do Ferrona.....	1,981	57				
	Rolling stock.....	9,384	24				
	Construction (original).....	1,920	18				
	St. Charles Branch.....	890	65				
	Indiantown Branch.....	1,291	07				
	Branch from or near Pedford to Dartmouth.....	118,153	94				
	Oxford and New Glasgow Section Construction.....	264,424	10				
	Cape Breton Section Construction.....	5,242	51				
	Cape Breton and Oxford and New Glasgow Ry's.....	4,126	40	1895.			
				June 30.	By Dominion of Canada.....	327,034	51
						55,007	939 40

E. & O.E.

T. WILLIAMS,  
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1895.

## No. 2.—INTERCOLONIAL RAILWAY.

DR. REVENUE ACCOUNT, Year ended 30th June, 1895.

CR.

Previous Year.	Expenditure.	Year ended 30th June, 1895.	Previous Year.	Earnings.	Year ended 30th June, 1895.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
1,081,787 76	Locomotive power, abstract 1..	1,043,656 57	958,915 13	Passenger traffic...	963,914 44
672,852 09	Car expenses, " 2..	651,031 19	1,834,126 34	Freight traffic....	1,782,608 54
656,758 04	Maintenance way works " 3..	679,468 39	194,468 80	Mails and sundries	194,194 97
369,839 69	Station expenses " 4..	370,702 74			
195,602 65	General charges " 5..	188,488 43			
4,831 75	Car mileage.....	3,555 42			
2,981,671 98	Total working expenses.....	2,936,902 74			
5,838 29	Balance.....	3,815 21			
2,987,510 27		2,940,717 95	2,987,510 27		2,940,717 95
	Special votes, abstract 6.....	13,398 17			

E. &amp; O.E.

T. WILLIAMS,

*Chief Accountant and Treasurer.*

MONCTON, N.B., 30th June, 1895.

## No. 3.—INTERCOLONIAL RAILWAY.

## LOCOMOTIVE POWER—(Abstract No. 1.)

Previous Year.		Year ended 30th June, 1895.
\$ cts.		\$ cts.
12,248 75	Mechanical superintendent's salary, clerks, office and travelling expenses...	11,692 18
273,316 77	Wages, drivers, firemen and cleaners.....	266,207 80
444,477 33	Fuel.....	427,404 50
34,590 72	Oil, tallow, waste, and small stores.....	31,216 63
257,793 04	Repairs to engines, tenders and engine tools.....	250,521 48
36,960 95	Water, including pump and tank repairs.....	37,458 65
22,400 20	Miscellaneous.....	19,155 33
1,081,787 76		1,043,656 57

E. &amp; O.E.

T. WILLIAMS,

*Chief Accountant and Treasurer.*

MONCTON, N.B., 30th June, 1895.

# Department of Railways and Canals.

## No. 4.—INTERCOLONIAL RAILWAY.

### CAR EXPENSES—(Abstract No. 2).

Previous Year.		Year ending 30th June, 1895.
\$ cts.		\$ cts.
66,132 15	Repairs to passenger cars.....	68,610 40
18,136 48	Repairs to postal, express and baggage cars.....	22,743 41
217,010 47	Repairs to freight cars and vans.....	183,153 70
7,554 89	Repairs to snow ploughs and flangers.....	8,923 27
255,853 06	Wages of conductors, train baggage-masters and brakemen.....	253,802 78
18,409 63	Oil and waste for packing.....	18,883 41
59,154 87	Small stores and fuel.....	64,333 06
30,600 54	Miscellaneous.....	30,581 16
<b>672,852 09</b>		<b>651,031 19</b>

E. & O. E.

**T. WILLIAMS,**  
*Chief Accountant and Treasurer.*

MONCTON, N.B., 30th June, 1895.

## No. 5.—INTERCOLONIAL RAILWAY.

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

Previous Year.		Year ending 30th June, 1895.
\$ cts.		\$ cts.
6,874 19	Chief and assistant engineers' salaries, clerks, office and travelling expenses.	6,193 93
334,455 51	Wages, repairing roadway, fences, and semaphores, including new sidings laid in.....	339,826 48
30,001 77	Rails and fastenings, including new sidings laid in.....	46,868 81
57,754 23	Ties.....	38,815 90
67,997 62	Timber, lumber, &c., for repairs to bridges, cattle-guards, snow fences, &c..	102,834 65
11,188 78	Repairs to wharfs.....	7,824 78
65,223 34	Repairs to buildings and platforms, including extensions of and addition to same.....	62,816 50
9,195 57	Repairs to tools.....	8,343 53
68,413 18	Clearing snow and ice.....	64,122 81
5,653 85	Miscellaneous.....	1,821 00
<b>656,758 04</b>		<b>679,468 39</b>

E. & O. E.

**T. WILLIAMS,**  
*Chief Accountant and Treasurer.*

MONCTON, N.B., 30th June, 1895.

## No. 6.—INTERCOLONIAL RAILWAY.

## STATION EXPENSES—(Abstract No. 4.)

Previous Year.	—	Year ending 30th June, 1895.
\$ cts.		\$ cts.
288,114 33	Salaries and wages of station masters, agents, clerks and telegraph operators, station baggage-masters, yard-masters, switchmen and labourers.....	292,104 34
81,725 36	Fuel, oil, light, stationery, tickets and other incidental expenses.....	78,598 40
.....	Miscellaneous.....	.....
369,839 69		370,702 74

E. &amp; O. E.

T. WILLIAMS,  
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1895.

## No. 7.—INTERCOLONIAL RAILWAY.

## GENERAL CHARGES—(Abstract No. 5.)

Previous Year.	—	Year ended 30th June, 1895.
\$ cts.		\$ cts.
79,024 31	General manager's, district superintendent's, train despatchers', general freight agent's, general passenger agent's salaries, clerks, offices and travelling expenses.....	78,022 30
27,273 74	Chief accountant and treasurer's, traffic auditor's, paymaster's and cashier's salaries, clerks, office and travelling expenses.....	26,965 66
7,278 31	Damages to men, animals, and goods.....	5,909 58
33,893 65	Ferry service.....	35,236 97
1,077 35	Telegraph expenses, not including pay to operators.....	1,475 23
23,020 59	Miscellaneous, printing, advertising, etc.....	24,561 66
18,035 30	Agency expenses.....	16,297 03
195,602 65		188,488 43

E. &amp; O. E.

T. WILLIAMS,  
Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1895.

Department of Railways and Canals.

No. 8.—INTERCOLONIAL RAILWAY.

CR.

GENERAL STORES ACCOUNT, Year ending 30th June, 1895.

Dr.

1894.	1895.	1895.	1895.	1895.	1895.	1895.	1895.
June 30.....	June 30.....	June 30.....	June 30.....	June 30.....	June 30.....	June 30.....	June 30.....
\$	\$	\$	\$	\$	\$	\$	\$
cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
To Balance .....			685,366 60			1,230,723 79	
To Purchases during year .....	963,419 94			By Issues during year .....			
Charges from other departments.....	320,737 59			Sales materials, fuel, &c., to other railways, &c.....		20,116 87	
Labour, &c.....	48,821 90			Sales of old material.....		90,122 84	
Staff rolls .....	13,904 27			By Balance--			1,340,963 00
			1,346,943 70	Ordinary stores, including fuel.....		357,497 54	
				Iron and steel rails and fastenings..		260,491 22	
				Old material for sale.....		73,858 54	
			2,032,310 30				691,347 30
							2,032,310 30

E. & O. E.

MONCTON, N.B., 30th June, 1895.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 9.—INTERCOLONIAL RAILWAY.

DR.

GENERAL BALANCE, Year ended 30th June, 1895.

CR.

	\$	cts.
Cash.....	399 96	
Stations.....	37,285 08	
General Stores—		
Ordinary stores, including fuel.....	\$ 357,497 54	
Iron and steel rails and fastenings.....	260,491 22	
Old material for sale.....	73,358 54	
Department accounts—		
Agriculture.....	\$ 421 99	
Interior.....	6 00	
Post Office.....	55,507 29	
Public Works.....	50 00	
Marine.....	6 78	
Militia and Defence.....	5,139 72	
C. P. R. rolling stock.....	61,131 78	
W. & A. Railway—general account.....	22,446 90	
Canada Eastern Railway—general.....	\$ 1,150 45	
do —traffic.....		
New Brunswick and Prince Edward Island Railway.....	11,025 76	
Caracquet Railway.....	1 04	
Canadian Pacific Railway—general.....	346 19	
do N. B. Division—general.....		
Bay Chaleurs Railway.....	15,498 16	
Boston and Maine Railway.....	154 15	
Salisbury and Harvey Railway.....	119 28	
United Counties Railway.....	26 12	
New York and New England Railway.....	2 40	
Chicago and Grand Trunk Railway.....	15 95	
New York, New Haven and Hartford Railway.....	0 32	
Western Counties Railway—general account.....	\$ 19 68	
do —traffic account.....		
Springhill and Parrsboro' Railway.....	15,957 92	
Halifax and Cape Breton Railway.....	3,161 99	
Elgin Branch Railway.....	1,151 42	
Great Eastern Fast Freight Line.....	726 10	
Kent Northern Railway.....	0 32	
Quebec Central Railway.....	40 08	
Pullman Palace Car Company.....	5,221 39	
Armour Refrigerator Line.....	121 25	
	24 91	
Dominion of Canada.....		9,412 57
Suspense.....		13,172 62
Chatham Railway.....		258 12
Grand Trunk Railway—general.....		18 08
do —traffic.....		116 88
Canadian Pacific Railway—traffic.....		15 71
Central Railway of New Brunswick.....		15 00
Elgin, Petitediac and Havelock Railway.....		0 10
Temisconata Railway.....		
Prince Edward Island Railway.....		
Canada Coals and Railway Company.....		
Unclaimed freight.....		



# Department of Railways and Canals.

St. John Street Railway Company.....	31 00		
Rents.....	2,159 20		
Canadian Express Company.....	3,450 34		
Dominion Express Company.....	349 02		
Allan SS. Line.....	1,892 13		
P. E. I. Steam Navigation Company.....	13 64		
SS. "Contest".....	2,374 16		
SS. "Admiral".....	816 22		
Acadia Coal Company.....	1,948 28		
Intercolonial Coal Company.....	1,100 87		
Gumbe-land Railway and Coal Company.....	177 93		
Dominion Coal Company.....	97 85		
Halifax Cotton Company Siding.....	6,749 97		
Union Bearing Company.....	928 18		
Poulson Iron Works.....	273 25		
Ontario Car and Foundry Company.....	1,276 00		
Coldbrook Rolling Mills.....	1,967 41		
Town of Dartmouth.....	32,000 00		
W. U. Telegraph Company.....	263 40		
Remittances destroyed.....	788 81		
Stations—			
Nauwigewauk..... \$	3 00		
Glengarry.....	5 00		
Bloomfield.....	25 21		
Coal Branch.....	65 84		
Weldford.....	55 00		
Ste. Luce.....	80 00		
Bic.....	22 00		
St. Arsène.....	107 12		
Valley.....	6 65		
Iona.....	72 71		
Nappan.....	40 00		
Kent Junction.....	28 38		
Derby Junction.....	231 04		
Gloucester Junction Station.....	78 87		
Dalhousie Station.....	19 63		
Campbellton (freight).....	25 00		
Isle Verte.....	25 00		
Car "Victoria".....	890 51		
Car "Ottawa".....	239 47		
Schooner "Mary Jane".....	16 05		
I.C.R. Employees' R. and Insurance Association.....	71 30		
Moncton Gas Light and Water Company.....	42 01		
Individual accounts.....	1 25		
Total.....	10,277 69		
Total.....	937,571 84	Total.....	937,571 84

T. WILLIAMS,  
*Chief Accountant and Treasurer.*

E. & O. E.  
MONCTON, N.B., 30th June, 1895.

## No. 10.—INTERCOLONIAL RAILWAY.

COMPARATIVE STATEMENT of Averages, Year ended 30th June, 1895.

	1895.	1894.
Mileage of railway .....	1,142	1,142
Engine mileage .....	4,879,981	5,140,867
Train mileage .....	3,999,242	4,202,740
Car mileage .....	45,277,909	47,367,234
Receipts per engine mile .....	60.24	58.11
Receipts per mile of railway .....	2,575.06	2,616.03
Percentage of passenger earnings to gross earnings .....	32.77	32.10
do freight do .....	60.63	61.39
do other do .....	6.60	6.51
Expenses per engine mile :—		
Drivers', firemen and cleaners' wages .....	5.46	5.32
Fuel .....	8.76	8.65
Oil, tallow, waste and small stores .....	.64	.67
Repairs to engines .....	5.13	5.01
Water and tank repairs .....	.77	.72
Miscellaneous .....	.39	.43
Total .....	21.15	20.80
Mechanical superintendent's salary, office and travelling expenses .....	.24	.24
Total .....	21.39	21.04
Locomotive power per engine mile .....	21.39	21.04
Car expenses per engine mile .....	13.34	13.09
Maintenance way and works per engine mile .....	13.92	12.78
Station expenses do .....	7.60	7.19
General charges do .....	3.84	3.80
Car mileage do .....	.07	.09
Total per engine mile .....	60.16	57.99
Locomotive power per train mile .....	26.09	25.74
Car expenses do .....	16.28	16.01
Maintenance way and works per train mile .....	16.99	15.63
Station expenses per train mile .....	9.27	8.80
General charges do .....	4.71	4.65
Car mileage do .....	.09	.11
Total per train mile .....	73.43	70.94
Working expenses per mile of railway .....	2,571.71	2,610.92

E. &amp; O. E.

T. WILLIAMS,  
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1895.

# Department of Railways and Canals.

## No. 11.—INTERCOLONIAL RAILWAY.

### SPECIAL VOTES—(Abstract No. 6).

	Year ended 30th June, 1895.
	\$ cts.
Compassionate allowance to the sufferers from accident at Lévis (vote \$12,000).....	11,898 17
Compensation to Mr. Martin for injuries sustained (vote \$1,500).....	1,500 00
	13,398 17

E. & O. E.

T. WILLIAMS,  
*Chief Accountant and Treasurer.*

MONCTON, N.B., 30th June, 1895.

INTERCOLONIAL RAILWAY OF CANADA,  
OFFICE OF THE CHIEF ENGINEER,  
MONCTON, N. B., 10th Sept., 1895.

SIR,—I have the honour to submit my report of the engineering department for the year ended 30th of June, 1895.

#### TRACK.

During the year 25 miles of old steel rails have been taken up and replaced with new four and a half inch rails, weighing 67 pounds to the yard.

#### TIES.

During the year 261,424 ordinary ties and 96 sets of switch ties were renewed.

#### BALLASTING.

Ballasting has been carried on, on all divisions. In all about 147 miles of the track has received a lift of good clean gravel from four to fifteen inches deep, requiring about 100,000 cubic yards of material.

#### SEMAPHORES.

New standard semaphores signals were erected at the following places: Bedford, Alton, Riversdale, Hopewell, Valley Stellarton, Londonderry, Wentworth, Maccan, Greenville, River Philip, Evans, Dorchester, Memramcook, Moncton, Sussex, Rothesay, Bloomfield, Berry's Mills, Bartibogue, Assametquaghan. Electric semaphores were erected at Truro (2), Springhill and Painses Junction.

All other semaphores throughout the line have been overhauled, repaired and painted where necessary.

## SIDINGS.

During the year  $2\frac{1}{2}$  miles of additional siding accommodation were provided.

## FENCING.

Forty-seven miles of new barbed wire and woven wire fence were erected during the past year in place of old pole fence, and post and board fences, and at points where no fence had previously been erected.

## SNOW SHEDS AND FENCES.

During the year 11,396 feet of new snow fencing were erected on the Northern and Cape Breton divisions, and large repairs were made to fences and sheds where required on the various divisions of the line.

## WHARFS AND TRESTLES.

At Halifax a gang of carpenters was engaged in general repairs and renewals of the wharfs and sheds and coal trestles from the 17th of October, 1894, until the 27th of February, at which date the whole lot, including the grain elevator, were destroyed by fire.

The "long or coal wharf" so called, only escaped. The rebuilding of the wharfs and sheds destroyed was put in hand at once. The wharf and trestle for bunker coal was completed ready for use on the 6th ultimo. The renewal of the ocean steamship pier has been somewhat delayed on account of the non-delivery of creosoted piles and pitch pine timber, but good progress is being made now, and it is expected the wharf and warehouse will be ready by the 15th of December next.

At Richmond necessary repairs were made to the wharfs and coal trestle. The trestle on outside wharf was raised about two feet to better facilitate the coaling of a special class of steamships now calling at Halifax.

On the 19th of May, the outer wharf 700 feet long by 120 feet wide, together with coal trestle, cattle sheds, and sugar sheds, was entirely destroyed by fire. Materials for the renewals have been ordered and the work of rebuilding is now in hand.

At Pictou Landing necessary repairs were made to the wharf, and a high loading platform on the east side, 125 feet by 14 feet, was renewed from two feet above high water.

At Pugwash necessary repairs were made to the wharf. A chute for shipping coal was provided.

At Mulgrave the outer end of main wharf was raised about three feet, fenders were placed on the round corners of wharf, and the wharf levelled up. About 300 tons of stone ballast was placed in the wharf, and a portion of the outer face of wharf was sheathed with 9-inch birch to protect it from the ice. Guides were placed on each side of the transfer apron to facilitate the docking of transfer barge. Some sheathing was placed on the shore side of Mulgrave dock.

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

At Springhill a number of sills and caps were renewed in the coal trestle.

At Sackville and Dorchester, necessary repairs were made to the wharfs and trestles.

At Moncton the flooring of the top of wharf was renewed.

At Shediac 1,100 feet by 18 feet of the top of wharf was renewed. A portion of the rail timber of wharf was also renewed.

At St. John about 250 feet of breast-work was renewed along the Courtenay Bay extension. Swing braces were provided for runways and abutments of the swing bridge of the harbour extension.

At Dalhousie the flooring of wharf was renewed.

## Department of Railways and Canals

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

At Lévis a portion of the flooring of Princess Pier was renewed, some new joists and timbers were placed in the wharf, and new elm fenders provided where necessary.

### BUILDINGS AND PLATFORMS.

At Halifax a contract for stone foundation of new brick freight shed 759 feet by 60 feet, at the deep water terminus, on the property recently acquired for that purpose, was let to Mr. Theophilus LeBlanc, in April last, and has now been completed. The contract for the walls and roof of same building has been let to Messrs. R. C. Donald & Co., and is now well in hand.

A cribwork across the face of the deep water terminus from the Marine and Fisheries to Cunard's wharf, has been in hand since April last, and is about three-quarters completed. The cribwork is about 15 feet out of water, and when the necessary grading is made up at the rear of it, the area of the yard will be much enlarged.

The buildings and wharfs owned by the department, and under lease to the Marine and Fisheries Department, have received necessary repairs. One wharf has been partially renewed.

A platform 120 feet long by 4 feet wide was provided at the east end of North Street train shed for the accommodation of milk dealers.

A new door-way was provided in the brick wall at the east end of train shed, and a platform laid to better facilitate the handling of baggage of combined trains.

The roof of train shed was overhauled and repaired, and about forty heavy corrugated lights renewed.

At Richmond necessary repairs were made to the car shops, machine shops, and round house. Eight of the smokestacks over the engine pits were renewed.

The interior wood-work of three offices was painted.

At Bedford new sills were placed under the freight house, and a new floor provided. The loading platform was renewed.

At Windsor Junction the external walls, and roof of station building were overhauled, repaired and painted. The agent's office, waiting room, and kitchen were also painted.

At Wellington necessary repairs were made to the roof of station building.

At Enfield the external walls and roof of station were overhauled, repaired and painted. The agent's office and waiting room were also painted. An extension of 50 feet was made to the station platform.

At Elmsdale the exterior walls of station were overhauled, repaired and painted. The iron roof of station also received a coat of paint.

At Milford the station building and roof were overhauled, repaired and painted.

At Shubenacadie the external walls and roof of freight shed were overhauled, repaired and painted. The iron roof of station also received a coat of paint. Some repairs were made to the station agent's office and dwelling apartments.

At Stewiacke the interior woodwork of station was painted. A new floor was placed in the kitchen. Necessary repairs were made to the cattle pen.

At Truro the external walls of station building were overhauled, repaired and painted. The superintendent's and train despatcher's offices received two coats of paint. A portion of the roof was recovered with shingles and painted. The roof of freight shed was also painted. Alterations were made to the windows of the Western Union Telegraph office. The stringers were renewed in two of the engine house pits. An extension was made to the partition of bonded goods warehouse in freight shed.

At West River new sills were placed under the station building, and the west side of roof recovered with shingles. The interior of station agent's office was sheathed, and a hard wood floor was laid in the waiting room.

At Stellarton the roof of engine shed was recovered with Sparham roofing, and six smoke jacks were renewed. The doors of engine shed also received necessary

repairs. A portion of the roof of freight shed was repaired, and the freight shed, coal house, and inspector's office painted.

At New Glasgow the verandah roof of station was painted.

At West Merigomish the sides and ends of station were re-shingled, and the building painted.

At Barney's River, Marshy Hope, and James River Stations, necessary repairs were made to the doors and windows.

At Brierly Brook a new door was provided for the flag station.

At Antigonish necessary repairs were made to the doors and windows of dwelling apartments of station. The freight shed and baggage room were overhauled, repaired and painted.

At South River the station building and platform were overhauled and repaired.

At Harbour au Bouche necessary repairs were made to the station.

At Grosvenor one mile east of Linwood flag station, a new platform 75 feet long was erected.

At Barachois a small freight shed and platform were erected. The loading platform was moved to a new site and rebuilt.

Other necessary repairs were made to all stations and platforms on the Cape Breton division.

At Pictou the station building was overhauled, repaired and painted.

The station buildings, freight sheds and coal sheds, at the following places were overhauled, repaired and painted: Sylvester's, Scotch Hill, Scotsburn, Meadowville, Denmark, Wallace, Pugwash Junction and Conn's Mills.

At Pugwash the engine shed, freight shed, and coal shed, were overhauled, repaired, and painted. The freight shed on Pugwash wharf also received a coat of paint.

At Debert and Londonderry necessary repairs were made to the station buildings.

At Oxford necessary repairs were made to the engine house.

At Salt Springs the station and freight shed were overhauled and repaired.

At Amherst 180 feet of the platform were renewed.

At Sackville the shingles on one side of the roof, the verandah and the top of bay-window, were renewed. A loading platform 180 feet long and 18 feet wide was renewed.

At Calhouns a new floor was laid in the flag station.

At Painsec Junction the roof of station was re-shingled, and the station and freight house platforms were renewed.

The platforms at the following stations were overhauled and repaired: Debert, Thomson, Oxford Junction, Springhill, Athol, Maccan, Sackville, Dorchester, College Bridge and Memramcook.

Old box car bodies were placed at Wentwork, Aulac and Dorchester, and fitted up for section men's tool houses.

At Shediac the roof of station building was reshingled.

At Moncton an addition of 11 by 20 feet was made to the electric station and a new floor was laid in the building. One side of the station building and the roof of the boiler shop were reshingled. Necessary repairs were made to the government cottages.

At Boundary Creek the top of platform was renewed.

At Salisbury the freight shed was overhauled, repaired and painted.

At Sussex necessary repairs were made to the engine shed, and the roof of station recovered with shingles.

At Hampton, Quispamsis and Rothesay, the station buildings were overhauled and repaired.

The loading platforms were renewed at the following stations: Moncton, Pollett River, Dorchester Road, and Bloomfield.

At Harcourt the passenger platform 150 feet by 4 feet was renewed. The coal shed was repaired.

## Department of Railways and Canals.

At Barnaby River necessary repairs were made to the roof of station building where damaged by fire.

At Chatham Junction necessary repairs were made to the station building and freight house.

At Nescastle a portion of the roof was recovered with shingles. Hardwood floors were laid in the ladies waiting room and kitchens of station agent and track-master's dwelling apartments. Three of the engine pits, and the floor of the round house were overhauled and repaired. The roof of carpenters' shop was reshingled. Some new sills were place under the station, and a patent flush water closet provided in the station.

The following stations between Moncton and Newcastle were overhauled, repaired and painted: Canaan, Millerton, Derby Junction, Indiantown, and Newcastle.

At Beaver Brook the station coal shed and tank house were overhauled, repaired and painted.

At Bartibogue the station building and coal shed were overhauled, repaired and painted.

At Red Pine the waiting room and office were sheathed and painted.

At Gloucester Junction the station and dwelling apartments, were overhauled, repaired and painted.

At Bathurst storm sashes were provided for the dwelling apartments of station. A bonded ware-room was provided in the freight house and the roof of building repaired.

At Petit Rocher the station building and freight house were overhauled, repaired and painted.

At Belledune necessary repairs were made to the station and freight house.

At Nash's Creek the walls and ceilings of waiting room were sheathed, and the interior of station painted.

At Jacquet River the roof of freight shed was recovered with shingles, and the interior of dwelling apartments of station painted.

At New Mills necessary repairs were made to the freight house roof.

At Charlo the station building was overhauled, repaired and painted.

At Dalhousie Junction the floor of freight shed was repaired, and the roof of shed recovered with shingles.

At Campbellton the superintendent's dwelling house was overhauled, repaired and painted. The station building was overhauled and repaired, and the exterior of building painted. Two new hardwood floors were laid in the station. The roof of fuel shed was recovered with shingles. A new foundation was placed under the coal shed. Necessary repairs were made to the floor of round house. The fuel shed and carpenters' shop were overhauled, repaired and painted. The station platform was renewed, and the freight house platform was repaired.

At Moffatt's an office was provided in the waiting room, and general repairs made to the building.

At Metapedia a water service was provided in the station and dwelling apartments, and the station building overhauled and repaired.

At Millstream the station was overhauled and painted, and the platform was renewed.

At Assametquaghan a new foundation was placed under the station, and the platform was renewed. The section men's houses were overhauled, repaired and painted.

At Pleasant Beach a gang-way for loading cattle was provided.

At Causapscal a cattle pen was provided, and the platform repaired.

At Amqui fifteen windows were renewed complete, and storm sashes provided for same. The freight house was enlarged to provide for the increased traffic.

At Cedar Hall the freight house was repaired, and the platform at the rear of that building renewed.

At Sayabec necessary repairs were made to the freight house, and a new door was provided.

At Kempt a loading platform 150 feet long was provided, and the flag station painted.

At Little Metis the station building was overhauled and repaired.

The roofs of the following tank-houses were recovered with shingles: Metapedia, Assametquaghan, Pleasant Beach, Salmon Lake and Kempt. The tank-house at Assametquaghan was painted.

The flag stations at Moffat's, Flat Lands, Pleasant Beach and Salmon Lake, were all overhauled, repaired and painted.

At Ste. Luce the roof of station building was recovered with shingles.

At Rimouski station a new gallery was provided.

At St. Fabien a hardwood floor was laid in the station.

At St. Simon a hardwood floor was laid in the station.

At Trois Pistoles the roof of restaurant was recovered with shingles.

At St. Eloi necessary repairs were made to the platform.

At Rivière du Loup, on the 20th of October, 1894, a fire destroyed the round house at this station. The work of re-building was put in hand at once, and completed before the end of the calendar year. The cost of this work was \$6,363.18.

At Ste. Hélène and River Ouelle stations new hardwood floors were laid in the stations.

At St. Pierre the station was overhauled and repaired.

At Chaudière Junction a new cattle yard was provided, and necessary repairs made to the freight office and two tenement houses.

At Hadlow necessary repairs were made to four of the tenement houses on the Chapman property.

#### BRIDGES, CULVERTS, &C.

Necessary repairs were made to the stone cattle guards at the following places between Halifax and Truro: Richmond, Fairview, Johnston's Crossing, Scott's Crossing and Brenton's Crossing.

An extension of about 60 yards of masonry was made to a box culvert at Ferrona Junction.

A beam culvert half a mile west of Brookfield station was overhauled and repaired.

The masonry in foundation walls of West River station was overhauled, repaired and pointed.

At Union a new steel deck plate girder of 40 feet span was provided, and first class masonry abutments built for same.

The stone cattle guards at Ross's Crossing near Lansdowne and at crossing near Glongarry were overhauled, repaired and pointed.

At Merigomish and James River the old Howe truss bridges of 80 feet span were replaced with through steel deck plate girders of the same span, and standard hard pine tops and guard rails were placed on them.

At Black River, near Tracadie Station, the old Howe truss of 100 feet span was replaced with a new steel through pony truss bridge, of the same span. A hard pine top and guard rails were placed on same.

At Murphy's some new braces and wall plates were put in the Howe truss bridge at that place.

At South River and Monastery the old Howe truss bridges were overhauled and strengthened, where found necessary.

At Pictou Brown's Point bridge was overhauled and repaired; 170 new ties were placed on the bridge.

Necessary repairs were made to a small tunnel near Onslow.

The tunnels at Caldwell's Brook and Greenville were overhauled and repaired.

A new floor was put on the overhead bridge at Humphrey's, near Sackville.

The west pier of Sackville River bridge was cased with wooden sheathing filled inside with stones.

A large number of open and box culverts between Truro and Moncton received necessary repairs.



## Department of Railways and Canals.

The wooden stringers of Darling's tank bridge were taken out and replaced with rail girders, and a standard top put on.

The overhead bridge at Mountain Road, Moncton, was replanked.

Four new hard pine seats were placed under girders of North-west Miramichi River bridge.

Three open culverts between Moncton and Newcastle were overhauled and put in good repair.

A new floor was placed on Tête-à-Gauche overhead bridge.

Necessary repairs were made to the floors of Middle River and Little River overhead bridges.

New hard pine stringers were placed on several culverts between Newcastle and Campbellton.

Between Rivière du Loup and Chaudière Junction, the masonry of a number of open and box culverts has been thoroughly overhauled and repaired.

The abutments of Boyer bridge were overhauled and pointed.

The following bridges were overhauled, scraped and painted :—

### *Between Lévis and Campbellton.*

Bridge one-half mile east of L'Islet.....	1 span	55 feet.
Bridge one mile east of L'Islet.....	1 do	45 do
Ferre River bridge.....	2 do	45 do
Sayabec bridge.....	1 do	35 do
Causapsal bridge.....	3 do	100 do

### *Between St. John and Halifax.*

Salmon River bridge.....	2 spans	100 feet.
Palmer's Pond bridge.....	1 do	80 do
Sodom bridge.....	1 do	50 do
Folleigh River bridge.....	3 do	100 do
Debert River bridge.....	2 do	100 do
Lepers Brook bridge.....	1 do	40 do
North Street bridge (Halifax).....	1 do	30 do

In Cape Breton, three spans of 250 feet each, of Grand Narrows bridge, were overhauled, scraped and painted.

The pier and abutments of Leper Brook bridge near Truro were extended to carry the new track. An old girder was taken from Maccan under-crossing, lengthened, and put in at this place.

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

P. S. ARCHIBALD,  
*Chief Engineer.*

D. POTTINGER, Esq.,  
General Manager Government Railways,  
Moncton, N.B.

INTERCOLONIAL RAILWAY OF CANADA,  
OFFICE OF THE MECHANICAL SUPERINTENDENT,  
MONCTON, N.B., 19th August, 1895.

SIR,—I beg to submit for your information the following statements:—

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

B.—Statement showing the locomotive and car mile age and the number of passenger and freight cars hauled per mile run by engines.

C.—Abstract of locomotive returns.

D.—Statement of the cost of locomotive power for each month during the year.

E.—General statement of the expenses of the mechanical department during the year.

Two locomotives with 18 x 24 inch cylinders were purchased to replace two of the 16 x 22 inch cylinder locomotives taken out of service, and four locomotives were entirely rebuilt.

Five of the older first-class cars and four of the express and baggage cars were taken out of service, and were replaced by the same number of new cars of the latest and most improved style. Forty-two platform cars, sixty-seven hopper cars, eleven large coal cars, and eight snow ploughs were taken out of service and were replaced by the same number of new ones.

The following is a summary of the principal work done:

DRAWING OFFICE.

New extended wagon top boiler designed, also new cylinders and saddle, new solid head pistons, crossheads, heavy footplates, and frame alterations for rebuilding locomotives classes B 6, 9, 11, 14.

General plans made of 10-wheel passenger express engines A 1 class, and 8 wheel passenger express engines B 4 class, also skeleton sheet of standard locos.

Detail drawings made for rebuilding locomotives classes B 7 and 8.

New specifications and drawings made for standard engine and passenger car axles, tires, wheels, rods, springs, boiler plates, tubes, etc.

Drawings made for foundations for new steam hammer and new machinery.

Drawings made for and repairs to ss. "Mulgrave" supervised.

Additional car detail drawings made.

Registers of locomotive repairs and water service kept. New materials supplied on specifications tested and reported on.

MONCTON LOCOMOTIVE SHOPS.

Four locomotives were "rebuilt" at a cost of \$8,000.00 each, with new "Belpaire" boilers complete. All boiler mountings and injectors new. Frames strengthened up. New cylinders, crossheads and guides complete. New driving wheels, tires, axles, crank pins and axle boxes. New underhung driving springs and gear. New fluted side rods. New cabs, heavy c.i. footplates and c.i. running boards. New engine truck complete. New improved "Westinghouse" air brake complete. Four locomotives 17" x 24" were rebuilt at a cost of \$4,500.00 each, with large second hand repaired boilers. New boiler tubes. Frames cut, lengthened, and strengthened, up. New injectors. New driving axles and tires. New eccentric sheaves and straps. New rocker arms and boxes. New side rods and crank pins. New cabs. New improved driving brake gear complete.

Seventy locomotives received general repairs and 49 had specific repairs, the following new parts being supplied:—7 new smoke boxes with extensions, 1 new crown sheet, 4,997 new tubes, 23 new smoke stacks, 22 new cylinders, 16 new driving wheels, 90 new driving tires, 18 new driving axles, 18 new engine truck axles, 15 new main rods, 62 new fluted side rods, 2 new slab side rods, 143 new crank pins.

## Department of Railways and Canals.

22 new cabs, 42 new pilots, 2 new s. f. lubricators, 13 new "chime" whistles, 34 sets new heavy c. i. running boards, 24 new heavy c. i. footplates, 12 new tender trucks complete.

Seventy-eight locomotive boilers were tested, 41 fire-boxes were patched, 5,456 tubes were pieced.

Eleven locomotives were equipped with the improved driving wheel brake, and 17 with steam heaters.

One hundred and fifty-six pair driving tires were turned, 338 cast iron wheels and 76 truck tires were bored and fitted.

Sixty-three engines and tenders were repainted and varnished; 10 engines and tenders were renovated and varnished.

One crane in yard rebuilt with new cast iron column and new foundation.

One new boiler built complete for water service.

178,681 bolts were forged.

180,190 do do threaded.

8,218 studs do do

79,378 lbs. of nuts were tapped.

New water tight door for engine room bulkhead of ss. "Mulgrave."

New packing rings for l. p. piston.

Engine columns stiffened.

Thrust bearing increased.

### MONCTON BRASS FOUNDRY.

60,799 lbs. brass castings.

134,055 do bearings.

### MONCTON CAR SHOPS.

Sixty-three freight cars, 7 snow ploughs rebuilt.

The following received heavy repairs:—13 sleepers, 5 parlours, 2 second class sleepers. 41 first class and 39 second class cars, 11 postal cars, 14 baggage cars, 22 vans, 639 freight cars, 1 snow plough.

The following received light repairs:—7 sleepers, 2 parlours, 12 second class sleepers, 45 first class, and 37 second class cars, 24 postal cars, 42 baggage cars, 10 snow ploughs, 1 flanger car, 4,237 freight cars.

The following were repainted or stained, and varnished:—5 sleepers, 2 parlours, 2 second class sleepers, 24 first class and 32 second class cars, 5 postal cars, 12 baggage cars and 1 van.

The following were renovated and varnished:—5 sleepers, 2 parlours, 13 first class and 8 second class cars, 5 postal and 3 baggage cars.

Four hundred and eighteen freight cars, 24 vans and 8 snow ploughs were repainted.

Special work was done as follows:

Sleeper "*Montmorenci*."—State room converted into a smoking room and fitted with side door. Gentlemen's toilet arrangements altered, and w. c. altered and re-arranged.

Sleeper "*Halifax*."—Had all seats fitted with new high backs, and re-upholstered with new plush. All lamps and fittings replated.

Sleeper "*St. John*," "*Margaree*," "*Rustico*," "*Saguenay*" and "*Baddeck*."—All had seats recovered with new plush throughout. Lavatory and w. c. added to state room with white Ajax metal wash bowl and fittings. All lamps and fittings replated. Windows all fitted with new "scme" blinds. Sleeper "*Saguenay*" also had new high backs fitted on seats.

Two first class cars had "inside finish" removed and replaced with new ash finish, and new pine ceilings ornamented with new design. New seat frames and new woven wire seats. New sets centre lamps.

Three first class cars were re-upholstered with new corduroy and one first class car with new crimson plush.

Six first-class cars were fitted with continuous basket racks.

Six new tender frames were built.

Two hundred and eighty new freight car trucks were built.

Two thousand nine hundred and seventy-two cast iron wheels were pressed on axles, 330 pair steel tired wheels were turned, 174 axles were turned.

Twelve freight cars were equipped with the Westinghouse air brake, also five first-class and one baggage car. Three freight cars were fitted with steam heating pipes.

A large amount of work was done to freight and baggage trucks, chairs, safes, ticket cases, footboards and other articles for out stations.

#### RIVIÈRE DU LOUP SHOPS.

Twenty-three locomotives received general repairs and twenty specific repairs; the following new parts being supplied :

Four new driving wheels, 24 new driving tires, 16 new crank pins, 2 new pair slab side rods, and 1 pair fluted side rods, 1 new cylinder saddle, 25 new driving axle boxes, 9 new smoke stacks, 1,273 new boiler tubes, 6 new heavy cast iron foot-plates, 7 sets new heavy cast iron running boards, 1 new head lamp, 1 new sight feed lubricator, 2 new cabs, 6 new pilots, 1 new tender frame.

Five locomotives were equipped with the Westinghouse brake complete; 9 had their driving wheel brakes altered and improved, and 3 were equipped with new steam heaters.

Twenty-five locomotive boilers were tested, 8 fire boxes were patched, 11 tender tanks were patched, and 2 pair tender trucks rebuilt, 39 pair driving wheel tires were turned.

Twenty-three locomotives and tenders were repainted and varnished, and 1 renovated and varnished.

Both trucks of rotary plough No. 2 were rebuilt and machinery repainted, 2 new snow plough aprons and 1 front beam.

15,750 lbs. of bolts forged and threaded for locomotives.

4,570 do do cars.

1,858 studs threaded.

300 lbs. nuts tapped.

#### RICHMOND SHOP.

Sixteen locomotives received general repairs and 26 specific repairs, the following new parts being supplied :—12 new driving wheel tires, 2 new crank pins, 15 new driving axle boxes, 7 new smoke stacks, 59 new boiler tubes, 2 new heavy cast iron footplates, 3 sets new heavy cast iron running boards, 1 new cab, 4 new pilots, 2 new tender frames, 1 new tender truck frame, 6 new sets grates, 5 new pistons, 5 new driving springs, 1 new set reversing gear, 1 new throttle valve and gear, 3 new pop valves, 1 new whistle, 1 new set tender springs.

Seven locomotives had their driving wheel brakes altered and improved.

Twelve locomotive boilers were tested, 10 fire boxes were patched, 1 tender tank had capacity increased, and 4 were patched, 26 pair driving tires were turned.

Fourteen locomotives and tenders were repainted and varnished, and 1 renovated and varnished.

13,666 bolts were forged.

51,577 do threaded.

1,697 studs were do

#### NEW PLANT AND MACHINERY.

One single standard 12 cwt. steam hammer, 36-inch stroke.

One set of 10 ft. boiler plate bending rolls, Bement pattern, with guarded friction rollers and steel balancing shaft. Top roll of steel.

## Department of Railways and Canals.

One single boiler plate punch, 40-inch throat, with overhead crane and Harrington hoist.

One single boiler plate punch, 24-inch throat, with crane and Harrington hoist.

One duplex air compressor 10 x 10½ x 12-inch.

One iron planing machine to plane 3 x 3 x 9 feet with patent drive and feed motion.

One double bolt cutter 1½-inch with automatic head.

One traversing air hoist for driving wheel lathes built complete in Moncton shop.

One power pipe cutting and threading machine for pipe ½ to 2-inch diameter with universal chuck and dies complete.

One Moffat portable air drill for use with compressed air.

### *Tinsmiths' Tools.*

One No. 1 Stows brass mounted groover.

One No. 10 improved sheet iron folder.

One Niagara encased wiring machine with standard.

One encased small turning machine with extra faces and standard.

One encased small burring machine with extra faces and standard.

One No. 1 double seamer with setting down attachment.

One No. 1 improved beading machine 13-inch with 3 pair rollers and rotary stand.

One No. 2 Niagara circle shears.

One No. 16 tube former with breaker.

One No. 20 Niagara square shears. Cut 22-inch.

Two No. 6½ circular hand shears.

Two No. 00 hollow mandrel stakes.

### TURNTABLE REPAIRS.

*Antigonish.*—Wrought iron truck repaired.

*Hadlow.*—Eight new 1½-inch centre cap bolts.

*Moncton.*—Two wheels bored out. New flooring.

*Rivière du Loup.*—One truck rebuilt. Arms and centre casting patched.

*St. John.*—One end girder repaired. One cone faced and turned.

*Ste. Flavie.*—Both arms patched. Three new truck wheels. New centre cap casting. One end girder repaired.

*Richmond.*—New centre casting.

### WATER SERVICE.

*Little Metis.*—New 17,000-gallon tank and foundation built complete. New reservoir built. Luid 1,100 feet 3-inch galvanized pipe and 1,000 feet 2½-inch galvanized pipe. Hot air pump repaired.

*Canaan.*—New tank trestle complete. Hoops cut and rewelded. Tank repaired and painted. New smoke and tank pipes. New lamps. Steam pump repaired.

*Amherst.*—Water crane repaired. Reservoir cleaned.

*Assametquaghan.*—Reservoir cleaned.

*Bathurst.*—Steam pump and tank pipe repaired. Reservoir cleaned.

*Belledune.*—Reservoir cleaned.

*Campbellton.*—New tank trestle complete. Hoops cut and rewelded. Tank repaired and painted. New c. i. centre pipe. Reservoir and brook cleaned. Water pipes repaired.

*Charlo.*—New smoke and tank pipes.

*Chaudière.*—Wind-mill pump and pipes repaired.

*Causapsca.*—Reservoir cleaned.

*Dalhousie Junction.*—Reservoir repaired and cleaned. One new stove.

*Elmsdale.*—Steam pump repaired.  
*Folleigh.*—Boiler repaired.  
*Hampton.*—Outlet from lake lowered.  
*Harcourt.*—New tank trestle complete. Hoops cut and rewelded. Tank repaired and painted. New smoke pipe.  
*Jacquet River.*—Reservoir cleaned.  
*Londonderry.*—One new tank hoop.  
*Millstream.*—Reservoir cleaned and repaired.  
*Metapedia.*—New tank pipe. Reservoir cleaned.  
*Mulgrave.*—Reservoir repaired and cleaned.  
*McKinnons Harbour.*—New tank pipe.  
*New Glasgow.*—Water crane and pipe repaired.  
*Oxford Junction.*—One new centre post and three cross-ties. One new stove and pipe. New globe valve.  
*Point Tupper.*—Wind-mill pump repaired.  
*Pugwash.*—235 feet 3-inch galvanized pipe laid. Steam pump and boiler put in.  
*L'Islet.*—New tank trestle complete. Hoops cut and rewelded. Tank repaired and painted. One new stove. Steam pump and pipes repaired.  
*Rogersville.*—Steam pump and tank pipe repaired.  
*River John.*—Wind-mill and pump repaired.  
*Rivière du Loup.*—Steam pump repaired. Water pipes in yard repaired.  
*Sacré Cœur.*—Reservoir repaired.  
*St. Moïse.*—New tubes in boiler. One new safety valve. Steam pump repaired. New smoke and tank pipes. New tank trestle complete. Hoops cut and rewelded. Tank repainted.  
*St. Fabien.*—Tank valve and steam pump repaired.  
*St. Valière.*—Boiler and steam pump repaired.  
*Ste. Luce.*—Windmill and pipes repaired.  
*St. Pierre.*—Steam pump and tank pipe repaired.  
*Ste. Flavie.*—Reservoir rebuilt. Boiler feed pipe and steam gauge repaired. New stove. New smoke pipe.  
*Ste. Anne.*—Boiler repaired.  
*St. Paschal.*—Water crane repaired.  
*Stellarton.*—New tank trestle complete. Hoops cut and rewelded. Tank repaired and painted. Water meter and pipes repaired.  
*Springhill.*—New tank trestle complete. Hoops cut and rewelded. Tank repainted. Steam pump repaired.  
*Trois Pistoles.*—Built new reservoir. Laid 1,500 feet 6-in. cast iron pipe and 900 feet 4-in. c. i. pipe. Water connections made with tank complete.  
*Thomson.*—New tank trestle complete. Hoops cut and rewelded. Tank repaired and painted. New stove. New smoke pipe.  
*Truro.*—Six new tank supports.  
*Westcock.*—New cast iron centre pipe.  
*Windsor Junction.*—Retubed boiler. Steam pump and tank floor repaired.  
 I hereby certify the rolling stock to be in good condition.

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

FRANCIS R. F. BROWN,  
*Mechanical Superintendent.*

D. POTTINGER, Esq.,  
 General Manager, Government Railways,  
 Moncton, N. B.

# Department of Railways and Canals.

## A.—INTERCOLONIAL RAILWAY.

STATEMENT showing the number of Locomotives and of the various classes of Cars on the 1st July, 1894, and on the 30th of June, 1895.

Locomotives.	Various Classes of Cars.														Total.					
	First-Class Sleepers.	Second-Class Sleepers.	Parlour.	First-Class Passenger.	Second-Class Passenger.	Postal and Smoking.	Express and Baggage.	Box.	Platform, 10 15 and 20 tons.	Hoppers, 6 tons.	Gondolas, 20 tons.	Coal Cars, 20 tons.	Cattle.	Vans.		Total.	Snow Ploughs.	Wing Ploughs.	Flangers.	Steam Ploughs.
204	15	7	5	91	94	24	39	2,066	2,130	996	418	757	101	99	6,842	44	10	21	2	77
204	15	7	5	92	94	24	39	2,071	2,209	999	418	768	103	99	6,943	44	10	21	2	77
6	1	1	1	4	4	4	4	5	79	3	26	11	2	2	101	8	8	8	8	8
6	5	5	5	5	5	4	4	47	139	101	26	30	4	4	356	8	8	8	8	8
6	5	5	5	5	5	4	4	47	139	101	26	30	4	4	356	8	8	8	8	8
204	15	7	5	92	94	24	39	2,024	2,112	965	392	749	99	99	6,716	44	10	21	2	77
204	15	7	5	92	94	24	39	2,071	2,209	999	418	768	103	99	6,943	44	10	21	2	77

JOHN SUTTON,  
*Mechanical Accountant.*

MONCTON, 30th June, 1895.

B.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive and Car Mileage year ending 30th June, 1895.

MONTHS.	LOCOMOTIVE MILEAGE.		CAR MILEAGE.				Snow Ploughs.	Average Passenger.	Average Freight.
	Passenger.	Freight.	Passenger.	Express, Postal and Baggage.	Freight.	Total.			
1894—July.....	124,813	202,823	562,281	271,676	2,839,052	3,673,009	2,650	6.67	13.99
August.....	128,353	212,973	588,702	270,236	2,926,215	3,785,153	.....	6.68	13.74
September.....	111,472	206,505	546,824	246,426	2,876,742	3,669,992	855	7.11	13.93
October.....	107,166	252,980	454,172	263,072	3,624,383	4,341,627	41	6.09	14.32
N vember.....	103,082	247,603	431,384	248,835	3,511,244	4,191,463	5,280	6.58	14.18
December.....	105,803	203,455	432,684	247,881	2,778,823	3,459,388	3,680	6.43	13.66
1895—January.....	110,105	215,618	457,964	249,220	2,624,344	3,331,528	17,665	6.43	12.17
February.....	97,549	207,714	368,355	215,241	2,444,129	3,027,725	33,919	5.98	11.77
March.....	103,731	259,143	406,641	285,978	3,557,254	4,199,873	17,734	6.19	13.73
April.....	106,143	253,826	441,167	284,815	3,695,170	4,371,152	818	6.36	14.55
May.....	104,509	229,881	428,792	236,511	3,196,251	3,861,554	457	6.36	13.90
June.....	105,994	198,001	470,389	247,308	2,647,748	3,365,445	183	6.77	13.37
	1,308,720	2,690,522	5,589,355	2,967,199	36,721,355	45,277,909	83,282	6.54	13.65

JOHN SUTTON,  
*Mechanical Accountant.*

MONCTON, N.B., 30th June, 1895.



# Department of Railways and Canals

## C.—INTERCOLONIAL RAILWAY.

### ABSTRACT of Locomotive Returns for Year ended 30th June, 1895.

Months.	Hours in Steam.	Locomotive Mileage.	Consumption.				Average Consumption per 100 Miles.				
			Tons of Coal.	Pints of Oil.	Pints of Valve Oil and Tallow.	Pounds of Waste.	Miles Run to 1 hour in Steam.	Pounds of Coal.	Pints of Oil.	Pints of Valve Oil and Tallow.	Pounds of Waste.
1894—July.....	37,343	400,487	11,425	25,250	21,481	8,887	10.72	6,390	6.30	5.36	2.21
August.....	38,405	413,246	11,847	25,535	21,000	8,939	10.76	6,421	6.18	5.08	2.16
September.....	36,946	391,637	12,097	23,882	18,566	8,390	10.60	6,919	6.10	4.49	2.14
October.....	40,787	436,492	13,980	26,909	20,348	9,910	10.70	7,174	6.17	4.66	2.27
November.....	39,488	423,250	14,451	24,922	18,639	9,425	10.71	7,648	5.89	4.40	2.22
December.....	35,456	379,548	12,809	22,269	17,777	8,753	10.70	7,559	5.87	4.68	2.31
1895—January.....	37,993	400,639	14,151	24,938	19,432	9,577	10.80	7,889	6.22	4.85	2.39
February.....	37,698	378,849	13,449	24,269	19,088	8,735	10.05	7,952	6.41	5.04	2.31
March.....	41,750	438,587	15,358	28,108	21,281	10,176	10.50	7,843	6.40	4.85	2.32
April.....	40,432	433,475	14,195	28,607	18,915	10,214	10.72	7,335	6.00	4.36	2.36
May.....	38,106	408,846	12,057	25,587	21,384	9,823	10.72	6,600	6.26	5.23	2.42
June.....	35,075	374,925	10,553	23,650	21,689	8,970	10.68	6,304	6.31	5.78	2.39
Totals.....	459,479	4,879,981	156,372	303,926	239,600	111,799	10.62	7,169	6.23	4.90	2.29

JOHN SUTTON,  
*Mechanical Accountant.*

MONCTON, N.B., 30th June, 1895.

D.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive Power for each month from 1st July, 1894, to 30th June, 1895.

Months.	Miles run by Engines.	Average per 100 miles.													
		Mechanical Supt.'s Salary, Clerks and Office Expenses.	Engine-men's Wages.	Fuel.	Oil, Tallow and Waste.	Repairs to Engines, Tenders and Tools.	Water.	Engine-houses and Turntables.	Total.	Mechanical Supt.'s Wages.	Fuel.	Oil, Tallow and Waste.	Repairs.	Water.	Eng. houses & Turntab.
1894—July..	400,487	\$ cts. 966 31	\$ cts. 22,395 38	\$ cts. 31,739 81	\$ cts. 2,769 10	\$ cts. 24,966 50	\$ cts. 2,527 38	\$ cts. 1,135 12	\$ cts. 86,529 60	\$ cts. 255 60	\$ cts. 70 6 24	\$ cts. 70 6 24	\$ cts. 64	\$ cts. 20 21 66	\$ cts. 20 21 66
Aug..	413,246	951 92	22,439 82	31,833 31	2,595 39	26,584 52	3,997 59	1,438 18	89,840 73	235 44	70	62 6 43	97	35 21 74	35 21 74
Sept..	391,637	1,001 97	21,965 82	33,686 95	2,618 42	26,541 30	3,950 16	1,133 12	90,897 74	255 61	8 60	67 6 77	1 02	28 23 20	28 23 20
Oct..	436,492	1,027 63	23,224 09	37,546 49	2,874 08	27,125 14	4,544 41	1,268 40	97,610 24	245 32	8 60	65 6 22	1 04	29 22 36	29 22 36
Nov..	423,250	1,025 82	22,489 47	39,000 42	2,745 48	17,873 95	5,689 21	1,804 91	90,629 26	245 31	9 22	65 4 22	1 34	43 21 41	43 21 41
Dec..	379,548	924 19	21,050 91	35,009 77	2,627 34	17,697 19	3,240 81	2,717 53	83,267 74	245 55	9 22	69 4 66	85	72 21 93	72 21 93
1895—Jan..	400,639	934 60	22,128 82	39,542 14	2,381 86	17,205 18	2,867 95	1,981 80	86,832 35	235 53	9 82	59 4 30	71	49 21 67	49 21 67
Feb..	378,849	947 04	20,505 22	37,654 59	2,683 39	19,137 84	2,008 89	2,254 38	85,191 35	255 41	9 94	71 5 05	53	59 22 48	59 22 48
Mar..	438,587	934 33	23,410 06	42,198 43	2,018 68	14,399 55	2,947 87	1,890 69	87,339 62	21 5 34	9 57	46 3 35	68	42 20 03	42 20 03
April.	433,475	961 62	23,235 03	38,549 76	2,812 30	23,466 02	2,212 13	1,609 79	92,847 25	235 36	8 89	64 5 41	51	38 21 42	38 21 42
May..	408,846	1,038 05	22,267 00	32,495 71	2,850 48	20,575 46	2,352 09	1,407 55	82,986 34	255 45	7 95	70 5 03	57	43 20 29	43 20 29
June..	374,925	978 70	21,096 18	28,347 12	2,240 11	14,918 22	1,080 16	523 86	69,184 35	27 5 63	7 59	59 3 96	29	14 18 45	14 18 45
Totals	4,879,981	11,692 18	266,207 80	427,404 50	31,216 63	250,521 48	37,458 65	19,155 33	1,043,656 57	24 5 46	8 75	64 5 13	77	39 21 98	39 21 98

JOHN SUTTON,  
Mechanical Accountant.

MONCTON, N.B., 30th June, 1895.

# Department of Railways and Canals.

## E.—INTERCOLONIAL RAILWAY.

**GENERAL STATEMENT of the Expenses of the Mechanical Department, for the Year ending 30th June, 1895.**

The miles run by train were.....	3,999,242
do        engines.....	4,879,981
do        cars.....	45,277,909
do        snow ploughs.....	83,282
	\$        cts.
Cost of locomotive power.....	1,043,656 57
	\$        cts.
Cost of repairs to cars :	
Repairs to passenger cars.....	68,610 40
do    postal, express and baggage.....	22,743 41
do    freight cars and vans.....	183,153 70
do    snow ploughs and flangers.....	8,923 27
Oil and waste for packing.....	18,883 41
Total.....	302,314 19
	\$        cts.
The cost of locomotive power per 100 miles run by trains.....	26 09
do            do            do        engines.....	21 38
do            do            do        cars.....	2 30
	\$        cts.
The cost of repairs to cars and ploughs per 100 miles run by trains.....	7 09
do            do            do        engines.....	5 81
do            do            do        cars and ploughs.....	0 62
	\$        cts.
The cost of oil and waste for packing per 100 miles run by trains.....	0 47
do            do            do        engines.....	0 39
do            do            do        cars and ploughs.....	0 04
	\$        cts.
The cost of repairs to cars per 100 miles run by them :	
Passenger.....	1 22
Postal, express and baggage.....	0 76
Freight cars and vans.....	0 49
Ploughs and flangers.....	10 71

JOHN SUTTON,

*Mechanical Accountant.*

MONCTON, N.B., 30th June, 1895.

## INTERCOLONIAL

## RETURN of Accidents and Casualties which have occurred in Canada on the

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1894.						
July 2..	5.20	74	Accommodation .....	W. J. Ross.....	John Gratton .....	48
do 6..	18.00	Special.	Working.....	Geo. Lamkie.....	F. Probert.....	43
do 13..	13.50	do ..	Freight.....	P. Carle.....	R. Kennedy.....	183
do 17..	23.15	9	Express.....	J. H. Sproull .....	R. McDonald.....	106
do 18..	10.00					
do 23..	9.00	Special.	Freight .....	J. B. Pollock .....	W. White.....	92
do 24..	18.20	do ..	Passenger.....	W. L. Broad .....	J. Stewa jr.....	175
do 28..	13.47	5	Freight.....	R. A. Rainnie.....	G. Milne.....	60
do 30..	8.25	Special.	Working.....	J. Henderson.....	F. Probert.....	122
do 24..	9.35	46	Express.....	B. Walker.....	C. Sawyer .....	151
do 31..	14.30		Shunting.....		W. F. Hicks.....	99
do 31..	19.30	Special.	Freight.....	E. Herritt.....	John Phinney.....	186
Aug. 1..	17.30	42	do .....	J. A. Bernier .....	D. Duncan.....	30
do 10..	5.45	16	do .....	G. C. Keys .....	T. Matheson.....	175
do 11..	17.40	Special.	Passenger.....	W. L. Broad .....	D. Yould.....	209
do 5..	24.50	do ..	Freight.....	F. Brown .....	W. White.....	39
do 16..	12.30	88	Accommodation.....	Jas. McDonald.....	John McDonald.....	46
do 17..	15.00					
do 18..	10.40	46	Passenger.....	B. Walker.....	C. Sawyer.....	151
do 31..	18.47	86	Express.....	J. Craigie .....	A. McLeod.....	145
Sept. 6..	20.05	Special..	Freight.....	James Baxter.....	D. Duncan.....	186
do 7..	8.45	do	Working.....	C. A. Atkinson .....	W. F. Smallwood.....	9
do 11..	9.30	16	Freight.....	E. Thompson.....	F. H. Moore.....	113
do 13..	10.30	Special..	do .....	E. Herritt.....	J. Dunbar.....	4
do 14..	11.30	16	do .....	J. J. Daley.....	Geo. Feetham.....	78
do 18..	14.10	Special..	do .....	A. Gamache .....	T. Henry.....	83
do 20..	14.05	15	do .....	J. J. Daley.....	Geo. Feetham.....	78
do 24..	14.00					
do 29..	24.40	34	Express.....	M. Letarte.....	W. Bastien.....	200
Oct. 8..	11.15		Quebec Central.....	J. Guay .....	M. A. Varney.....	10
Nov. 2..	7.50	14	Accommodation.....	F. A. Davison .....	R. McDonald.....	134
do 5..	17.00					
do 5..	13.45	Special..	Freight.....	W. W. Gordon.....	D. Duncan.....	186

## Department of Railways and Canals.

### RAILWAY.

line of the Intercolonial Railway during the year ended the 30th June, 1895.

Place of Accident.	Name of person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of injury.	Verdict of Coroner's Jury.
Pugwash Junc. Coal Branch....	Chas. Teed..... Allen Mahaney	Neither.... Employee	Walking on track... .. Struck by piece of a crane which was broken by two parts of train colliding.	Fatal..... Leg injured.....	Accidental.
Sandy Cove....	R. Kennedy....	do	Slipped and put his hand through cab window.	Arm do .....	
Truro.....	John Christie...	Neither.... Stealing ride	Jumped off train while in motion.	Head do .....	
Truro .....	John Wright...	Employee..	While moving a derrick the arm was knocked down on his head.	Seriously injured	
River Philip....	James Weir.....	do	Slipped and fell while getting on train.	Knee do .....	
Moncton.....	Harry Hunter...	Passenger..	Jumped off train in motion.	Head & hand inj.	
Brookville.....	A. Lockhart....	Employee..	While applying brake, ratchet wheel broke.	Hand injured...	
Anagance.....	M'y'ld Goddard	do	Slipped and fell while attempting to get on train in motion.	Leg and side injured.	
Lévis.....	Wm. Collins....	do	Attempting to get on train in motion.	Slightly injured.	
Truro.....	Ed. Hennesey..	Pullman Co. Employee	While coupling cars.....	Side & back injur	
New Glasgow...	Jas. Gillis....	Neither....	Crossing track in team...	Fatal.....	Accidental
Amqui.....	A. Roussel....	Employee..	While unloading freight...	Finger injured..	
Salt Spring....	J. A. McDonald.	do	While coupling cars.....	Hand do .....	
Pt. du Chêne....	Dan'l. Gillis...	Passenger..	Fell under train while attempting to get on train in motion.	Hand cut off...	
Milford.....	Albert McInnis.	Employee..	Fell off end of box car in motion.	Fatal.....	Accidental.
Oxford Junction.	Wm. Hyatt....	do	While coupling cars.....	Shoulder broken.	
Moncton.....	M. McDonald...	do	Fell while getting off a gondola which he was repairing.	Leg broken.....	
St. Jean Port Joli	A. Robichaud... (Aged 2½ years)	Neither....	On track.....	Fatal.....	Accidental.
Near N. Sydney	John Day.....	Neither....	Walking on track.....	Fatal.....	Accidental.
Albion Siding...	Chas. Whooten..	Employee..	While coupling cars.....	Foot and leg injured.	
Bartibogue....	A. Legouff....	do	Carelessly sitting between two platform cars of train in motion.	Back and leg injured.	
Truro .....	E. Thompson...	do	Fell out of van door while train was in motion.	Considerably injured.	
Mulgrave .....	L. Douglass....	do	Slipped and fell under wheel while shunting.	Leg broken.....	
Windsor Junction.	N. Hopper.....	do	While loading freight a piece of casting fell on his foot.	Foot injured....	
Amqui .....	A. Deschamplain	do	Fell against window of car while applying brakes.	Hand injured...	
Near Bedford...	R. F. Page.....	Neither....	Walking on track.....	Fatal.....	Accidental.
St. John.....	Jacob Belyea...	Employee..	While loading castings...	Foot injured....	
Campbellton...	B. M. Lanagan..	Passenger..	Fell off platform of train in motion.	Feet cut off....	
Lévis.....	Wm. Simpson...	Neither....	Crossing track.....	Fatal.....	Accidental.
Halifax.....	E. Crowe.....	Employee..	Knocked off box car.....	Slightly injured.	
St. John.....	Byron Wood....	do	While loading a piece of granite.	Back injured....	
Bayfield Road	Mrs. Albert Randall. Mrs. Ambrose Randall.	Neither.... do	Crossing track in team ... do	Head and knee injured. Slightly injured.	

## INTERCOLONIAL

## RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1894.						
Nov. 7.	15 00		Shunting.....		P. Fogarty.....	188
do 12.	15 40		Freight.....	J. W. Henderson..	E. S. White.....	25
do 14.	12 30	37	Shunting.....		W. Boyd.....	95
do 21.	7 30		Freight.....	J. Buchanan.....	J. McLennan.....	182
Dec. 1.	22 40	Special..	Grand Trunk.....	— Dussault.....	— Linahan.....	87
do 21.	6 50	4				
do 24.	20 00		Shunting.....		W. Lovett.....	93
do 25.	3 30	45	Accommodation.....	R. W. Orchard.....	D. C. Gallon.....	15
1895.						
Jan. 17.	19 35		Shunting.....		H. McDonald.....	160
do 17.	21 30	Special..	Freight.....	F. Beaulieu.....	J. O. Lebel.....	103
do 28.	9 35		Shunting.....		H. McAuley.....	163
do 28.	16 45					
do 30.	2 27	34	Express.....	Thos. Corbett.....	C. Atkinson.....	198
Feb. 3.	9 30	Special..	Freight.....	A. McLeod.....	A. Sutherland.....	86
do 4.	15 50	do ..	do ..	J. Pollock.....	J. Clarke.....	150
do 9.	.....	7	Quebec Central.....			
do 11.	14 00		Shunting.....		R. Kennedy.....	58
do 14.	14 10	Special..	Working.....	J. A. White.....	S. A. Watson.....	165
do 15.	8 00		Shunting.....		J. McDowell.....	99
do 21.	11 00	Special..	Working.....	J. A. White.....	S. A. Watson.....	90
do 21.	22 00	40	Freight.....	J. A. Davidson.....	J. Williamson.....	13
do 23.	11 00		Shunting.....		Jas. McDermott.....	89
do 25.	7 15	Special..	Freight.....	J. R. Fisher.....	P. Peterson.....	182
March 4.	13 00		Shunting.....		J. W. Boyd.....	95
do 14.	11 40	25	Express.....	W. Kelly.....	S. Trider.....	36
do 20.	11 00					
do 27.	15 00	Special..	Freight.....	T. Coffey.....	N. Sinclair.....	208
do 29.	1 15		Shunting.....		M. White.....	180
do 30.	23 00	Special..	Freight.....	W. Bovard.....	S. W. Carson.....	108
April 1.	13 30		Shunting.....		J. Stockall.....	184
do 1.	15 20		do ..		J. McDowell.....	99
do 1.	21 30	Special..	Freight.....	J. R. Fisher.....	L. Starratt.....	58
May 1.	13 40	do ..	do ..	Jas. Swetnam.....	W. C. Hunter.....	158
do 4.	8 20	do ..	do ..	J. Buchanan.....	P. Peterson.....	58
do 7.	15 45	do ..	do ..	La. Belanger.....	T. Matheson.....	200
do 25.	8 45	do ..	do ..	G. W. Hoppsr.....	L. King.....	160
June 15.	7 00	do ..	Working.....	B. McLennan.....	Jno. G. McDonald..	32
do 21.	21 30		Shunting.....		J. Phinney.....	99

## Department of Railways and Canals

### RAILWAY.

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

Place of Accident.	Name of person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of injury.	Verdict of Coroner's Jury.
St. John	D. McCarthy	Employee	While loading fish in car	Wrist injured	
Moncton	— Rouff	Neither	Walking on track	Slightly injured	
Chatham Junction	E. McAnn	Employee	While coupling cars	Hand injured	
Truro	Thos. Lester	do	do do	Thumb injured	
Near Johnston's	Jas. W. Doyle	Neither	Lying alongside of track	Heel injured	
Lévis	Etienne Guay	do	Attempting to jump on train in motion	Leg broken	
Halifax	Ed. O'Grady	Employee	While uncoupling cars	Leg injured	
Ste. Flavie	W. Keith	do	Jumped off tender of engine	Leg and arm injured	
Truro	J. D. McDonald	do	Slipped while stepping on engine in motion	Foot injured	
Rimouski	Jos. Michaud	do	Engine colliding with cars	Slightly injured	
Truro	Jno. Glenfield	do	While coupling cars	Hand injured	
Amherst	W. Atkinson	do	Fell off ladder while lighting telegraph signal	Considerably injured	
Jacquet River	{ C. Atkinson	do	Run off of No. 34 train	Slightly injured	
	{ A. J. Russell	do	do do	do do	
Mulgrave	Yuill Ross	do	While coupling cars	Hand injured	
Windsor Junction	A. Hayman	do	While gilpoking a car out of siding	Foot injured	
Bennett's Cross'g	Louis Proulx	do	Struck by overhead aqueduct.	Fatal	Accidental.
		(Que. Cent. Ry.)			
Truro	Chas. Brunt	Employee	While coupling cars	Hand injured	
Moncton	Rich'd Cullens	do	Fell off train in motion	Wrist broken	
Truro	J. D. McDonald	do	While shunting	Hand injured	
1 mile W. of Moncton	Jas. Steadman	do	Fell off train in motion	Seriously injured	
Nash's Creek	Jere. Murphy	Neither	Lying on track	Fatal	Accidental.
Moncton	David Gibson	Employee	Fell off end of box car	Foot injured	
Riversdale	Neil McDougall	do	Foot caught in frog while shunting	Fatal	Accidental.
Truro	Thos. Lester	do	Foot caught between rails while shunting	Ankle sprained	
Amherst	Jno. McCracken	do	Jumped off train in motion	Shoulder dislocated	
St. John	J. E. Vincent	do	Struck by a piece of timber which was being hoisted out of a vessel	Head injured	
Memramcook	Jno. McKelvie	Neither	Crossing track in team	Fatal	Accidental.
Truro	Hy. Fraser	Employee	While coupling cars	Finger injured	
Adamsville	D. Armstrong	do	do do	do do	
Truro	Jno. Glenfield	do	While uncoupling steam hose pipe	Arm scalded	
do	Jno. Finlayson	do	Struck by engine while working on track	Head and leg injured	
Elmsdale	J. Weir	do	While coupling cars	Hand injured	
Derby Junction	E. Thomson	do	do do	do do	
Riversdale	S. Thomas	do	do do	Finger injured	
2½ miles E. of Sayabec	Louis Chasse, (deaf and dumb)	Neither	Attempting to cross track	Fatal	Accidental.
Atkinson's Siding	C. Brunt	Employee	While coupling cars	Hand injured	
Windsor Junction	Ed. Weeden	do	While plouphing ballast off cars	Leg broken	
Truro	Hy. Grant (Coloured)	Neither	Slipped while getting off car in motion	Fatal	Accidental.

## WINDSOR BRANCH RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,  
MONCTON, N. B., 9th September, 1895.

SIR,—I have the honour to submit the following statements showing the results of the working of the Windsor Branch Railway for the year ended the 30th June, 1895:—

- 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, now called the Dominion Atlantic Railway Company, on the same terms as last year, the company being allowed to retain two-thirds of the gross earnings, the balance, one-third, being paid over to the Government, the latter maintaining the line.

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

In 1894-95.. .. .	\$39,077 64
1893-94 .. . . .	32,975 47
	<hr/>
	\$ 6,102 17
	<hr/>

There was a decrease in the expenses of maintenance as follows:—

In 1893-94.....	\$17,645 09
1894-95.....	14,640 07
	<hr/>
	\$ 3,005 02
	<hr/>

The earnings and expenses compare as follows:—

Earnings.....	\$39,077 64
Expenses.....	14,640 07
	<hr/>
	\$24,437 57
	<hr/>

The necessary repairs and renewals were made, and the permanent way and works are in good order.

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

D. POTTINGER,  
*General Manager, Government Railways.*

COLLINGWOOD SCHREIBER, Esq., C. M. G.,  
Deputy Minister and Chief Engineer,  
Railways and Canals.



## Department of Railways and Canals.

### No. 1.—WINDSOR BRANCH RAILWAY.

#### REVENUE ACCOUNT for Year ended 30th June, 1895.

Previous Year.	Expenditure.	Year ended 30th June, 1895.	Previous Year.	Earnings.	Year ended 30th June, 1895.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
17,645 09	Maintenance way and works, Abstract No. 1.	14,640 07	12,483 64	Passenger traffic.....	13,581 18
15,330 38	Balance.....	24,437 57	19,339 99	Freight traffic.....	24,348 30
			1,151 84	Mails.....	1,148 16
32,975 47		39,077 64	32,975 47		39,077 64

E. & O. E.

T. WILLIAMS,  
*Chief Accountant and Treasurer.*

MONCTON, N.B., 30th June, 1895.

### No. 2.—WINDSOR BRANCH RAILWAY.

#### MAINTENANCE of Way and Works—(Abstract No. 1).

Previous Year.	Particulars.	Year ending 30th June, 1895.
\$ cts.		\$ cts.
9,783 98	Repairs of track.....	7,823 83
2,836 16	Rails and fastenings.....	1,139 28
1,378 97	Ties.....	2,848 80
773 86	Bridges.....	64 46
39 90	Signals.....	79 83
	Switch locks.....	1 20
	Culverts and cattle guards.....	35 40
347 68	Wharf at Windsor.....	35 50
280 66	Buildings and platforms.....	640 60
51 40	Hand cars and trolleys.....	72 46
411 07	Clearing snow and ice.....	439 66
145 26	Tools, and repairs of same.....	212 37
418 20	Fencing.....	320 76
1,142 08	Accountant's office and expenses.....	912 41
35 87	Miscellaneous.....	13 51
17,645 09		14,640 07

E. & O. E.

T. WILLIAMS,  
*Chief Accountant and Treasurer.*

MONCTON, N.B., 30th June, 1895.

## No. 3.—WINDSOR BRANCH RAILWAY.

DR. GENERAL BALANCE, year ended 30th June, 1895.

CR.

1895.		\$	cts.	1895.		\$	cts.
June 30...	To Old rails account.....	8,100	00	June 30...	By Dominion of Canada..	17,442	43
	Dominion Atlantic Railway...	3,381	78				
	Stores Department .....	5,960	65				
		17,442	43			17,442	43

E. &amp; O. E.

T. WILLIAMS,

*Chief Acct. and Treas.*

MONCTON, N.B., 30th June, 1895.

## No. 4.—WINDSOR BRANCH RAILWAY.

## MONTHLY STATEMENT OF RECEIPTS—One-third Earnings.

Month.	Passenger Traffic.		Mails.		Freight Traffic.		Totals.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1894—July.....	1,710	67	95	68	1,559	23	3,365	58
August.....	2,432	94	99	36	1,408	03	3,940	33
September.....	1,941	62	92	00	2,644	48	4,678	10
October.....	1,063	88	96	91	3,350	83	4,511	62
November.....	833	29	96	91	2,729	89	3,660	09
December.....	881	71	96	90	2,328	75	3,307	36
1895—January.....	699	07	94	46	1,983	54	2,777	07
February.....	506	65	94	45	1,799	34	2,400	44
March.....	618	25	94	45	1,752	24	2,464	94
April.....	817	26	95	68	1,578	77	2,491	71
May.....	899	87	95	68	1,743	59	2,739	14
June.....	1,175	97	95	68	1,469	61	2,741	26
	13,581	18	1,148	16	24,348	30	39,077	64

E. &amp; O. E.

T. WILLIAMS,

*Chief Acct. and Treas.*

MONCTON, N.B., 30th June, 1895.

# Department of Railways and Canals.

INTERCOLONIAL RAILWAY OF CANADA,  
OFFICE OF THE CHIEF ENGINEER,  
MONCTON, N.B., 7th September, 1895.

SIR—I have the honour to submit my report for the maintenance of the Windsor Branch for the year ending 30th June, 1895.

## TRACK.

Three miles of old iron rails have been taken up and renewed with four and a quarter 56 pound steel rails. Four thousand feet of old iron taken up has been used for the renewal and repairs of sidings.

## TIES.

During the year 4,589 ordinary ties, and 5 sets of single throw switch ties have been renewed.

## BALLASTING.

About seven miles of the branch has received a lift of ballast, amounting to 3,550 yards. This ballast was hauled from Truro, there being no suitable material on the branch.

## SIDINGS.

The siding at St. Croix which has been unused for some years was replaced to provide accommodation for the business connected with the new mill recently put in that place by Mr. T. G. McMullen of Truro.

Six frogs and six sets of switch gear were renewed on the branch.

## FENCING.

Three hundred and ninety rods of woven and barbed wire fence have been put up in place of the old pole fence.

A snow fence 550 feet long was rebuilt at Hibbet's Siding.

## BRIDGES AND CULVERTS.

A new stone culvert 3 by 4 was put in two and a half miles west of Beaver Bank.

Two pairs of spruce cattle guards at Newport and Smith's Crossing were renewed with cedar.

## BUILDINGS AND PLATFORMS.

At Windsor the station and freight shed were thoroughly overhauled, repaired and painted.

At Newport the roof station was recovered with shingles and painted; the interior of building was also overhauled, repaired and painted.

At Mount Uniacke the roof of station was renewed with cedar shingles and painted.

At Beaver Bank the walls and roof of station were painted, the ceilings were whitewashed, and the interior walls painted.

The platforms at Ellershous and Three-mile Plains were entirely renewed, and cedar sills and pine used instead of spruce and hemlock.

## GENERAL.

The freight houses, tool houses, cattle pens and approaches to public crossings were overhauled and whitewashed throughout the branch.

Necessary repairs were made to the wharf and Windsor, and a new siding was put in for the shipment of plaster at the expense of the shippers.

The old iron rails have now been all removed, and the track is in excellent order throughout the branch: not a wheel has been off the track during the year.

I have the honour to be, sir,

Your obedient servant,

P. S. ARCHIBALD,  
*Chief Engineer.*

D. POTTINGER, Esq.,  
General Manager, Government Railways,  
Moncton.

PRINCE EDWARD ISLAND RAILWAY,  
OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,  
MONCTON, N. B., 11th September, 1895.

SIR,—I have the honour to submit the following report on the working of the Prince Edward Island Railway, for the fiscal year ended 30th June, 1895.

I inclose the report of the Superintendent including statements of the various accounts.

The mileage of railway in operation was the same as last year, 210 miles.

There was no expenditure on capital account during the year, the total cost of the railway on the 30th June, 1895, being \$3,750,565.38.

The working expenses for the year were.....\$ 232,905 19

The gross earnings were..... 149,654 78

\$ 83,250 41

In comparison with the previous year, there was a decrease of earnings of \$8,879.05, and an increase of working expenses of \$6,014.13.

The decrease of earnings was chiefly in freight traffic which fell off \$6,881.72.

The necessary repairs and renewals were made, and the railway and rolling stock are in a state of efficiency.

The work of relaying the track with steel rails was continued, and twelve and three-quarter miles of track were relaid: the iron rails weighing forty pounds to the yard were replaced with new steel rails weighing fifty pounds to the yard. Last year nine miles were relaid. The additional cost of this work, together with the increased cost of operating the railway due to a very stormy winter, account for the increase of working expenses over last year.

I have the honour to be, sir,

Your obedient servant,

D. POTTINGER,  
*General Manager, Government Railways.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Railways and Canals.

## Department of Railways and Canals.

PRINCE EDWARD ISLAND RAILWAY,  
SUPERINTENDENT'S OFFICE,  
CHARLOTTETOWN, P.E.I., 10th September, 1895.

SIR,—I have the honour to submit the following report on the working of the Prince Edward Island Railway, for the fiscal year ended 30th June, 1895.

I also inclose the following statements prepared by the Accountant, Auditor and Mechanical Accountant:

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

A. Monthly statement of the cost of locomotive power.

B. Statement of the performance and consumption of locomotives.

C. Monthly statement of car mileage.

D. Statement showing number of locomotives cars, snow ploughs and flangers.

E. Comparative statement of the expense of the mechanical department for the year ended 30th June, 1895.

The mileage of railway in operation during the year was the same as stated in last year's report, 210 miles.

### CAPITAL ACCOUNT.

The total expenditure on capital account to 30th June, 1894, was.....	\$3,750,565 38
No additions being made during the year, the total expenditure to 30th June, 1895, was the same as the previous year.....	3,750,565 38
	3,750,565 38

### REVENUE ACCOUNT.

Business during the year has not been good, owing to poor crops and dull markets. Last year's yield of potatoes and oats—the two staple articles of export—was much below the average, and the market price of same being low there was no activity in the export trade of the province. Competition by water carriage during the season of open navigation is also becoming keener year by year, there being regular lines of first-class steamers between the principal island ports and Boston, Halifax and Montreal. Passenger traffic during the past year has also been affected adversely by the dulness incidental to short crops and poor markets; also by the stormy winter impeding travel by rail.

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

Expenditure.....	\$232,905 19
Earnings.....	149,654 78
	\$ 83,250 41

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

In 1894-95.....	\$149,654 78
1893-94.....	158,533 83
	<u>\$ 8,879 05</u>

The earnings from passenger traffic compare as follows:—

In 1894-95.....	\$ 62,239 37
1893-94.....	64,159 60
	<u>\$ 1,920 23</u>

The earnings from freight traffic compare as follows:—

In 1894-95.....	\$ 68,061 11
1893-94.....	74,942 83
	<u>\$ 6,881 72</u>

The earnings from mails and sundries compare as follows:—

In 1894-95.....	\$ 19,354 30
1893-94.....	19,431 40
	<u>\$ 77 10</u>

The number of passengers carried compares as follows:—

In 1894-95.....	125,089
1893-94.....	123,727
	<u>1,362</u>

The weight of freight carried compares as follows:—

	Tons.
In 1894-95.....	48,325
1893-94.....	53,577
	<u>5,252</u>

#### WORKING EXPENSES.

The working expenses exceed those of the previous year by \$6,014.13. There is an increase of \$4,598.22 for fuel, chargeable to the locomotive department, \$3,873.73 for clearing ice and snow, and \$4,115.20 for rail renewals, these three items aggregating \$12,587.15.

Owing to frequent and heavy snow falls accompanied by violent wind storms during the winter months, great difficulty was experienced in keeping the line open. It was by far the worst winter for railroading in this province since that of 1882, but every reasonable effort was made to keep trains moving. The expenses for clearing the track of ice and snow were heavy, amounting to \$13,568.67, and the necessary running of two engines on trains during a great part of the time added very materially to the expenses of the locomotive department.

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

In 1894-95.....	\$232,905 19
1893-94.....	226,891 06
	<u>\$ 6,014 13</u>

## Department of Railways and Canals.

The averages compare with last year as follows:—

Per mile run by engines:—

	Cents.
In 1894-95 .....	70·43
1893-94.....	73·94

Per mile run by trains:—

In 1894-95.....	95·35
1893-94....	96·92

Per mile of railway:—

In 1894-95.....	\$ 1,109 07
1893-94.....	<u>1,080 73</u>

### TRACK.

During the year 1,000 tons steel rails and fastenings were used to replace  $12\frac{3}{4}$  miles iron rails. The former weigh 50 pounds to the yard, and the latter 40 pounds. Four miles of the new rails were laid between Tracadie and Mount Stewart and  $8\frac{3}{4}$  miles between Eilerslie and Coleman. At the close of the year  $113\frac{3}{4}$  miles of track had been relaid with steel rails, leaving  $96\frac{1}{2}$  miles old iron rails still to be replaced. Steel rails now extend from Charlottetown west to Coleman, and from Royalty Junction East to within a short distance of Mount Stewart.

### TIES.

Fifty-five thousand ordinary ties were renewed during the year, and 3,000 culled ties were used in yards and sidings; 33 sets switch ties and 25 head-blocks and frames were also renewed.

### BALLASTING.

During the year 11,550 cubic yards of ballast were distributed where most needed.

### SIDINGS.

Five hundred and twenty-eight feet additional siding accommodation were provided at Kensington, and a new siding was put in at Summerside for Mr. J. E. Lefurgey.

### FENCING.

During the year 21,748 feet of woven wire and 52,172 feet barbed wire fence,—making a total of 14 miles,—were erected to replace old fence worn out.

Seven hundred feet new snow fence were put up and 9,890 feet old snow fence rebuilt.

Ninety farmers' gates were renewed, and a great deal of time was given to repairs of old fence.

### BRIDGES AND CULVERTS.

Cedar abutments were placed under the end spans of St. Peter's Bridge.

A pile bent was put under centre span of Bradalbaue Bridge, and repairs were made to other bridges where necessary.

Thirty cattle guards and 5 timber culverts were rebuilt.

Two tile culverts were replaced with iron pipe, and masonry of all bridges and culverts was pointed with cement.

## WATER SERVICE.

Two new Haggis tanks were put in at Summerside, and the tanks at Ashton, Mount Stewart, Tracadie, Milton, Elliott's and West Devon were renewed.

## BUILDINGS AND PLATFORMS.

At Dundee flag station and platform were rebuilt, and station painted.  
 At Fredericton flag station and platform were rebuilt and station painted.  
 At Piusville flag station and platform were rebuilt and station painted.  
 At DeBlois flag station and platform rebuilt.  
 Platform was renewed at Bear River Station.  
 At St. Peter's platform was renewed.  
 At North Wiltshire the platform was renewed.  
 The platform was renewed at Freetown station.  
 At Kensington platform was renewed.  
 At Wellington platform was renewed.

Port Hill station was raised three feet, and new sills and timber foundation placed under it. A new pitch and gravel roof was put on the building and the old chimneys were taken down and replaced by one new chimney. The building was painted outside and the waiting room, office and dwelling painted and whitewashed.

The roof of Kensington station was renewed with pitch and gravel, and other necessary repairs made to the building.

A new floor was put in waiting room at Alberton station, and the building was otherwise repaired. New sills were placed under the freight house at Alberton.

A new floor was put in kitchen of agent's dwelling at Tignish.

New tool houses were built at Conway and Dundee.

The engine house and freight shed at Summerside were partially reshingled.

The roof of round house at Charlottetown was renewed with pitch and gravel, and four new skylights put in. The cupola of round house was painted and partly reshingled.

Sixty thousand shingles were put on the roof of the car shop.

Two furnaces were rebuilt in the coppersmith's shop.

## WHARFS.

For necessary repairs to Summerside wharf the following material was used:—  
 One hundred and fifty tons hard stone, 140 tons hemlock timber, 10,000 feet hemlock plank, 10 hardwood piles 40 feet long and 500 cubic feet ballast.

Fifty tons hemlock timber, 8,000 feet hemlock plank and 150 cubic feet ballast were used in repairing wharf at Charlottetown.

Georgetown wharf was repaired, 25 tons hemlock timber, 500 feet hemlock plank and 100 cubic yards ballast being used.

Twenty fenders were put on Souris wharf, and 200 tons hard stone were put on it, besides other necessary repairs.

Fifty tons hemlock timber, 60 tons hard stone and 10 fenders were used in repairing Alberton wharf.

The wharfs at the different points on the line are very expensive to keep in good repair, particularly that at Summerside, where the traffic is heavy, and the timber subject to destruction by worms.

## ROLLING STOCK.

The following is a summary of the principal work done:—

*Locomotive Repairs.*

Five engines received heavy repairs, and six medium repairs; 18 boilers were tested, 4 fire boxes were patched, and 700 tubes pieced.



## Department of Railways and Canals.

The following new parts were supplied :—

One cylinder, 1 front tube sheet, 350 tubes, 20 tires, 4 crank pins, 12 straps for side and main rods, 3 cabs, 6 pilots, 5 smoke stacks, 3 tender trucks and 1 tender frame.

Thirteen engines and tenders were painted and varnished.

Three engines and tenders were renovated and varnished.

### *Car Repairs.*

Rebuilt.—1 baggage car, 3 platform cars and 1 snow plough.

Heavy repairs.—2 first-class, 1 second-class, 2 second-class and baggage, 1 baggage, 1 postal, 2 vans, 4 box, 15 platform cars, 2 snow ploughs and 3 flanger cars.

Medium repairs.—6 first-class, 4 second-class, 4 second-class and baggage, 2 postal, 20 box and 20 platform cars, 2 snow ploughs and 1 flanger car.

Painted and varnished.—2 first-class, 5 second-class, 2 second-class and baggage, 2 postal and 1 baggage car.

Renovated and varnished.—4 first-class, 5 second-class and baggage and 1 postal and smoking.

### STORES.

On 30th June, 1895, the value of stores on hand was:—

General stores.....	\$ 45,137 11
Fuel.....	5,827 60
Rails and fastenings.....	52,407 36
Old material serviceable.....	3,376 50

Total..... \$106,748 57

The purchase of stores during the year amounted to \$84,387.46, the greater part of which was obtained from the General Railway Store at Moncton.

### CASUALTIES.

A regrettable accident occurred at Kensington on 6th September, 1894. Mr. Chas. E. Robertson, of Charlottetown, while attempting to board a passenger train in motion, missed his footing and fell, the wheels on rear truck of passenger car passing over his legs and crushing them. Medical attendance was immediate, and one leg was amputated at once; but the shock was so severe that death resulted in an hour after the accident. No blame was attached to the train hands, and an inquest was not considered necessary.

### STAFF CHANGES.

I assumed the local management of the road early in September last, succeeding the late Mr. Unsworth, whose unexpected death in the midst of a life of usefulness was universally regretted. Mr. H. W. Anderson was at the same time appointed mechanical foreman, and Mr. J. J. Chappell mechanical accountant and storekeeper.

### GENERAL.

Every reasonable effort has been put forth to maintain the road and its equipment in a state of efficiency, and I am pleased to be able to report the track, rolling stock and buildings in a satisfactory condition.

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

A. McDONALD,  
*Superintendent.*

D. POTTINGER, Esq.,  
General Manager, Government Railways,  
Moncton, N. B.

## No. 1.—PRINCE EDWARD ISLAND RAILWAY.

DR.		CAPITAL ACCOUNT.		CR.		
1894.		\$	cts.	1894.	\$	cts.
June 30.	To cost of road and equip- ment to date.....	3,750,565	38	June 30.	By Dominion of Canada....	3,750,565 38
1895.				1895.		
June 30.	To expenditure, year ended 30th June, 1895.....			June 30.	do do .....	
		3,750,565	38			3,750,565 38

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

## No. 2.—PRINCE EDWARD ISLAND RAILWAY.

DR.		REVENUE ACCOUNT for year ended 30th June, 1895.				CR.	
Previous Year.	Expenditure.	Year ended 30th June, 1895.		Previous Year.	Receipts.	Year ended 30th June, 1895.	
\$	cts.	\$	cts.	\$	cts.	\$	cts.
57,457 74	Locomotive power.....	61,485 54		64,159 60	Passenger traffic.....	62,239 37	
32,997 48	Car expenses.....	34,133 09		74,942 83	Freight traffic.....	68,061 11	
99,780 20	Maintenance of way and works.....	101,599 30		19,431 40	Mails and sundries.....	19,354 30	
26,132 39	Station expenses.....	26,548 71		158,533 83	..... Total receipts.....	149,654 78	
10,523 25	General charges.....	9,138 55		68,357 23	..... Balance.....	83,250 41	
226,891 06	..... Totals.....	232,905 19		226,891 06	..... Totals.....	232,905 19	

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

# Department of Railways and Canals

## No. 3.—PRINCE EDWARD ISLAND RAILWAY.

### LOCOMOTIVE POWER—(Abstract No. 1).

Previous Year.	Details.	Year ended 30th June, 1895.
\$ cts.		\$ cts.
896 96	Mechanical superintendent's salary, clerks, office and travelling expenses....	845 63
15,770 34	Wages of drivers, firemen and cleaners.....	16,515 30
13,099 55	Fuel.....	17,697 77
2,708 13	Oil, tallow, waste and small stores.....	2,436 64
22,286 14	Repairs to engines, tenders and engine tools.....	21,442 08
797 62	Water, including pump and tank repairs.....	1,294 37
1,899 00	Miscellaneous.....	1,253 75
57,457 74	Totals.....	61,485 54

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

## No. 4.—PRINCE EDWARD ISLAND RAILWAY.

### CAR EXPENSES—(Abstract No. 2).

Previous Year.	Details.	Year ended 30th June, 1895.
\$ cts.		\$ cts.
8,689 62	Repairs to passenger cars.....	6,959 55
1,149 75	do postal and baggage cars.....	2,734 28
6,363 15	do freight cars and vans.....	4,841 80
	do snow ploughs and flangers.....	2,481 96
13,277 36	Wages of conductors, train baggage and brakemen.....	13,419 46
420 94	Oil and waste for packing.....	537 84
2,313 30	Small stores and fuel.....	2,409 21
783 36	Miscellaneous.....	748 99
32,997 48	Totals.....	34,133 09

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

## No. 5.—PRINCE EDWARD ISLAND RAILWAY.

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

Previous Year.	Details.	Year ended 30th June, 1895.
\$ cts.		\$ cts.
482 46	Engineer's salary, clerks, office and travelling expenses.....	293 27
35,666 47	Wages in repairing roadway, fences and semaphores.....	30,843 88
13,966 82	Rails, chairs and spikes.....	19,353 64
18,126 29	Ties.....	19,028 67
10,438 72	Timber and lumber for repairs to bridges, cattle-guards, fences, &c.....	7,217 67
3,560 75	Repairs to wharfs.....	2,216 91
6,240 05	do buildings and platforms.....	8,199 10
1,603 70	do tools.....	877 49
9,694 94	Clearing ice and snow.....	13,568 67
99,780 20	.....Totals.....	101,599 30

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

## No. 6.—PRINCE EDWARD ISLAND RAILWAY.

## STATION EXPENSES—(Abstract No. 4).

Previous Year.	Details.	Year ended 30th June, 1895.
\$ cts.		\$ cts.
19,523 06	Salaries and wages of station-masters, agents, clerks, telegraph operators, station baggage-masters, yardmasters, switchmen, watchmen and labourers.....	19,636 02
6,609 33	Fuel, oil, light, stationery and other incidental expenses.....	6,912 69
26,132 39	.....Totals.....	26,548 71

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

## Department of Railways and Canals

### No. 7.—PRINCE EDWARD ISLAND RAILWAY.

#### GENERAL CHARGES—(Abstract No. 5).

Previous Year.	Details.	Year ended 30th June, 1895.
\$ cts.		\$ cts.
3,807 07	Superintendent's and train despatchers' salaries, clerks, office and travelling expenses .....	3,497 25
4,549 53	Accountant and auditor's, paymaster's and cashier's salaries, clerks, office and travelling expenses .....	4,553 49
543 85	Advertising .....	627 23
168 92	Damages to men, animals and goods .....	71 23
684 14	Telegraph expenses (not including pay to operators) .....	339 96
769 74	Miscellaneous .....	49 39
10,523 25	Totals .....	9,138 55

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

### No. 8.—PRINCE EDWARD ISLAND RAILWAY.

#### STATEMENT of General Stores Account, Year ended 30th June, 1895.

1894.	DR.	\$ cts.	\$ cts.								
June 30...	To Balance brought forward .....		102,778 74								
1895.											
June 30...	To Purchases during the year, including rails .....	84,430 51									
	Charges from other departments .....	15,887 75									
	Pay-rolls .....	1,569 45									
			101,887 71								
1895.	CR.										
June 30...	By Issues during the year .....		204,666 45								
			97,874 83								
	Balance .....		106,791 62								
	<table style="border: none; margin-left: 20px;"> <tr> <td style="padding-right: 10px;">( Ordinary stores .....</td> <td style="text-align: right;">\$45,137 11</td> </tr> <tr> <td style="padding-right: 10px;">Fuel .....</td> <td style="text-align: right;">5,827 60</td> </tr> <tr> <td style="padding-right: 10px;">Rails and fastenings on hand .....</td> <td style="text-align: right;">52,450 41</td> </tr> <tr> <td style="padding-right: 10px;">Old material, serviceable .....</td> <td style="text-align: right;">3,376 50</td> </tr> </table>	( Ordinary stores .....	\$45,137 11	Fuel .....	5,827 60	Rails and fastenings on hand .....	52,450 41	Old material, serviceable .....	3,376 50		
( Ordinary stores .....	\$45,137 11										
Fuel .....	5,827 60										
Rails and fastenings on hand .....	52,450 41										
Old material, serviceable .....	3,376 50										

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

## No. 9.—PRINCE EDWARD ISLAND RAILWAY.

DR.	GENERAL BALANCE.		CR.		
	\$	cts.	\$	cts.	
General stores.....	106,791	62	Dominion account.....	109,236	15
Cash.....	1,643	51	Accident insurance.....	3,940	11
Post Office Department.....	3,794	70	Through ticket ledger.....	1,274	74
Stations.....	1,073	77	Intercolonial Railway.....	4	00
Militia Department.....	237	14			
Anglo-American Telegraph Co.....	46	43			
Judge Weatherbie.....	30	00			
Sidney Grey.....	25	00			
Railway Extension, Charlottetown....	812	83			
Total.....	114,455	00	Total.....	114,455	00

W. T. HUGGAN,

*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

# Department of Railways and Canals

## No. 10.—PRINCE EDWARD ISLAND RAILWAY.

### COMPARATIVE STATEMENT of Averages, for Years ended 30th June, 1894 and 1895.

Details.	1895.	1894.
Mileage of railway open.....	210	210
Engine mileage.....	330,661	306,853
Train do .....	244,249	234,093
Car do .....	1,197,529	1,237,083
Receipts per engine mile..... Cents	45·26	51·66
do mile of railway..... Dollars	712·64	754·92
Percentage of passenger earnings to gross receipts.....	41·59	40·47
do freight do do .....	45·47	47·27
do other do do .....	12·94	12·26
Expenses per engine mile—		
Drivers, firemen and cleaners' wages.....	4·99	5·14
Fuel.....	5·36	4·27
Oil, tallow, waste and small stores.....	0·74	0·88
Repairs to engines.....	6·48	7·26
Water and tank repairs.....	0·39	0·26
Miscellaneous.....	0·37	0·62
Mechanical superintendent's salary, office and travelling expenses.....	18·33	18·43
	26	0·29
Total..... Cents	18·59	18·72
Locomotive power per engine mile.....	18·59	18·72
Car expenses do .....	10·33	10·75
Maintenance of way and works do .....	30·72	32·52
Station expenses do .....	8·03	8·52
General charges do .....	2·76	3·43
Total per engine mile..... Cents	70·43	73·94
Locomotive power per train mile.....	25·17	24·54
Car expenses do .....	13·97	14·10
Maintenance of way and works do .....	41·59	43·62
Station expenses do .....	10·87	11·16
General charges do .....	3·75	4·50
Total per train mile..... Cents	95·35	96·92
Working expenses per mile of railway..... Dollars	1,109·07	1,080·43

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., 30th June, 1895.

## A.—PRINCE EDWARD

## MECHANICAL

## STATEMENT of Cost of Locomotive Power

Months.	Miles run by Engines, less Ballasting.	Cost of				
		Enginemen's Wages.	Fuel.	Oil, Tallow, Waste, &c.	Repairs.	Water, including Tank and Pump Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1894—July.....	32,399	1,415 20	1,109 02	226 74	2,214 28	65 70
August.....	31,078	1,337 12	920 84	197 45	1,638 50	66 44
September.....	29,075	1,325 72	1,187 96	223 61	1,332 45	174 70
October.....	30,209	1,448 87	1,305 36	245 70	1,525 97	251 96
November.....	31,469	1,406 04	1,518 16	212 70	1,660 80	177 36
December.....	27,244	1,386 16	1,163 63	196 25	1,877 51	348 36
1895—January.....	21,375	1,268 87	1,119 52	170 17	2,083 11	24 22
February.....	24,490	1,506 04	2,419 60	204 39	1,868 11	21 19
March.....	29,842	1,887 78	3,646 00	255 72	1,777 24	2 40
April.....	24,719	1,299 81	1,138 08	194 58	1,607 89	0 80
May.....	24,521	1,080 41	966 68	121 64	1,930 22	2 40
June.....	24,240	1,153 28	1,202 92	187 69	1,926 00	158 84
Totals.....	330,661	16,515 30	17,697 77	2,436 64	21,442 08	1,294 37



# Department of Railways and Canals.

## ISLAND RAILWAY.

### DEPARTMENT.

for the Year ended 30th June, 1895.

		Average per Mile run.							
		Engine-men.	Fuel.	Oil, Tallow, &c.	Repairs.	Water.	Miscellaneous.	Total.	
Miscellaneous, including Expenses of Office and Engine House.	Total.								
\$ cts.	\$ cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
129 24	5,160 18	4 36	3 42	0 70	6 83	0 22	0 39	15 92	
131 26	4,291 61	4 30	2 96	0 63	5 27	0 21	0 42	13 80	
86 00	4,330 44	4 55	4 08	0 77	4 58	0 60	0 29	14 89	
162 51	4,940 37	4 79	4 32	0 81	5 05	0 83	0 53	16 35	
260 20	5,235 26	4 46	4 82	0 67	5 27	0 56	0 82	16 63	
169 19	5,141 10	5 08	4 27	0 72	6 89	1 27	0 62	18 87	
244 56	4,910 45	5 93	5 23	0 80	9 74	0 11	1 14	22 97	
178 60	6,197 93	6 14	9 86	0 83	7 62	0 09	0 72	25 30	
304 82	7,873 96	6 32	12 21	0 85	5 95	0 01	1 02	26 38	
119 04	4,360 20	5 25	4 60	0 79	6 50	0 01	0 48	17 63	
106 10	4,207 45	4 40	3 94	0 49	7 87	0 01	0 43	17 15	
207 86	4,836 59	4 75	4 96	0 77	7 94	0 65	0 85	19 95	
2,099 38	61,485 54	5 00	5 35	0 73	6 50	0 39	0 63	18 60	

J. J. CHAPPELL,  
*Mechanical Accountant.*

## B.—PRINCE EDWARD

## MECHANICAL

## STATEMENT of the Performance and Consumption

Month.	Hours in steam.	Train Mileage.				Mileage by Engines.			
		Passenger.	Freight and Mixed.	Ballasting.	P oting.	With train.	Light.	Shunting.	Total.
1894—July.....	3,742	12,736	11,791	1,082	135	25,744	166	7,681	33,591
August.....	4,188	12,375	11,421	1,793	.....	25,589	220	7,227	33,036
September.....	3,756	10,967	10,782	3,236	507	25,492	61	7,008	32,561
October.....	3,892	11,204	11,830	2,868	128	26,030	506	6,811	33,347
November... ..	3,635	11,753	11,603	996	404	24,756	273	7,611	32,640
December.....	3,393	9,396	11,304	.....	98	20,798	84	6,362	27,244
1895—January.....	2,658	2,722	11,708	.....	604	15,034	89	6,252	21,375
February.....	3,801	1,971	10,893	.....	5,258	18,122	284	6,084	24,490
March.....	4,841	3,514	13,143	.....	5,707	22,364	517	6,961	29,842
April.....	3,335	2,255	13,754	110	1,029	17,148	182	7,514	24,844
May.....	3,455	2,646	14,196	3,238	.....	20,080	122	8,169	28,371
June.....	3,164	4,440	11,953	1,161	22	17,576	86	7,925	25,587
Totals.....	43,860	85,979	144,378	14,484	13,892	258,733	2,590	85,605	346,928

# Department of Railways and Canals.

## ISLAND RAILWAY.

### DEPARTMENT.

of Locomotives for the year ended 30th June, 1895.

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.
132,349	.....	5·16	8·97	3·94	10,446	2,360	380	650	31·09	7·02	1·13	1·93
129,336	.....	5·05	7·88	3·91	10,068	2,072	367	614	30·47	6·27	1·11	1·85
140,852	.....	5·63	8·66	4·32	11,516	2,364	394	581	35·36	7·25	1·21	1·78
143,291	.....	5·53	8·56	4·29	12,436	3,012	277	681	37·29	9·03	·83	2·04
134,288	.....	5·51	8·97	4·11	13,658	2,442	397	589	41·84	7·54	1·21	1·80
93,177	.....	4·50	8·03	3·42	9,936	2,152	348	527	36·47	7·89	1·27	1·93
77,924	1,560	5·40	8·04	3·64	9,376	1,833	204	527	43·86	8·57	·95	2·46
50,845	9,554	3·95	6·44	2·07	20,060	2,529	278	442	81·91	10·32	1·13	1·80
73,703	9,382	4·42	6·16	2·47	30,230	2,912	390	591	101·30	9·75	1·30	1·98
95,036	662	5·89	7·46	3·82	9,779	2,232	303	519	39·36	8·98	1·21	2·08
130,000	... ..	6·47	8·21	4·58	11,082	2,032	370	509	39·06	7·16	1·30	1·79
102,078	.....	5·81	8·08	3·98	11,492	2,392	333	510	44·91	9·39	1·30	1·99
1,302,879	21,158	5·32	7·91	3·75	160,082	28,332	4,041	6,745	46·14	8·17	1·16	1·94

J. J. CHAPPELL,  
*Mechanical Accountant.*

## C.—PRINCE EDWARD ISLAND RAILWAY.

## MECHANICAL DEPARTMENT.

## MONTHLY STATEMENT of Car Mileage for year ended 30th June, 1894.

Months.	First-Class.	Second-Class and Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Total.
1894—July.....	29,994	18,488	26,296	33,217	24,354	132,349
August.....	26,662	19,712	23,740	33,815	25,407	129,336
September.....	25,791	20,821	23,507	39,199	31,534	140,852
October.....	23,832	18,567	23,802	44,850	32,240	143,291
November.....	21,620	20,970	19,177	57,640	14,881	134,288
December.....	20,435	17,140	16,343	34,250	5,009	93,177
1895—January.....	13,910	14,034	12,811	24,176	12,993	77,924
February.....	10,823	10,378	7,781	16,500	5,363	50,845
March.....	14,257	13,718	11,799	21,067	12,862	73,703
April.....	15,231	15,088	13,039	38,610	13,068	95,036
May.....	16,787	16,241	20,030	45,609	31,333	130,000
June.....	15,884	15,588	15,365	34,333	20,908	102,078
Totals.....	235,226	200,745	213,690	423,266	229,952	1,302,879
Less—Ballasting.....			14,455	1,220	89,675	105,350
Balance.....	235,226	200,745	199,235	422,046	140,277	1,197,529

J. J. CHAPPELL,  
*Mechanical Accountant.*

# Department of Railways and Canals.

## D.—PRINCE EDWARD ISLAND RAILWAY.

### MECHANICAL DEPARTMENT.

**STATEMENT showing the number of Locomotives, and of the various classes of Cars and other Rolling stock, on the 30th June, 1895.**

	Locomotives.													Snow-ploughs.			Total.
	1st Class.	2nd Class.	Combined, 1st, 2nd and Baggage.	Combined 2nd class and Baggage.	Postal and Smoking.	Combined Postal and Baggage.	Baggage.	Pay car.	Vars.	Box Freight.	Stock.	Platform.	Total.	Flangers.	Total.		
On record, 30th June, 1894, serviceable.	20	17	15		3			1	3	175		122	336	8	5	13	
do do condemned.	1											3	3		2	2	
Total	21	17	15		3			1	3	175		125	339	8	7	15	
Transferred as follows:—																	
First-class to second class		1	1														
Second class to first, second and baggage			1	1													
Second-class to second-class and baggage			6		6												
Second-class to baggage			2				2										
Second-class to postal and baggage			1			1											
Postal and smoking to postal and baggage					2	2											
Box freight and stock									10	10							
	21	16	6	1	6	1	3	2	1	3	165	10	125	339	8	7	15
Condemned on hand, 1st July, 1894...	1											3	3		2	2	
do during the year								1					1				
Less—Rebuilt.	1							1				3	4		2	2	
								1				3	4				
ADD—Serviceable and repairing.	1														2	2	
	20	16	6	1	6	1	3	2	1	3	165	10	125	339	8	5	13
Total on record, 30th June, 1895.	21	16	6	1	6	1	3	2	1	3	165	10	125	339	8	7	15

Deduct italic figures.

**J. J. CHAPPELL,**  
*Mechanical Accountant.*

## E.—PRINCE EDWARD ISLAND RAILWAY.

## MECHANICAL DEPARTMENT.

COMPARATIVE STATEMENT of the Expenses of the Mechanical Department for the Years ended 30th June, 1894 and 1895.

	1895.	1894.
The miles run by trains were.....	244,249	234,093
do engines were.....	330,661	306,853
do cars were.....	1,197,529	1,237,083
do snow-ploughs were.....	21,158	22,292
	\$ cts.	\$ cts.
The cost of locomotive power was.....	61,485 54	57,457 74
do repairs to cars was.....	14,535 63	16,202 52
do do passenger cars was.....	6,959 55	8,689 62
do do postal and smoking cars was.....	2,734 28	1,149 75
do do freight cars and vans was.....	4,841 80	6,363 15
do labour, oil, and waste for packing was.....	266 41	420 94
do repairs to snow-ploughs and flangers was.....	2,481 96	
	\$ cts.	\$ cts.
The cost of locomotive power per 100 miles run by trains was.....	25 17	24 54
do do do engines was.....	18 59	18 72
do do do cars was.....	5 13	4 64
	\$ cts.	\$ cts.
The cost of repairs to cars per 100 miles run by trains was.....	5 95	6 92
do do do engines was.....	4 39	5 28
do do do cars was.....	1 21	1 31
	\$ cts.	\$ cts.
The cost of labour, oil and waste for packing per 100 miles run by trains was.....	0 10	0 18
do do do do engines was.....	0 08	0 13
do do do do car was.....	0 02	0 03
	\$ cts.	\$ cts.
Repairs to passengers cars per 100 run by trains were.....	2 84	3 71
do postal and smoking cars were.....	1 11	0 49
do freight cars and vans were.....	1 98	2 71

J. J. CHAPPELL,  
Mechanical Accountant.

## Department of Railways and Canals.

### PRINCE EDWARD ISLAND RAILWAY.

RETURN of Accidents and Casualties which have occurred in Canada on the line of the Prince Edward Island Railway, during the year ended 30th June, 1895.

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Corner's Jury.
1894.												
July 9	12.00 a.m.	Sp1	Passenger	T. K. Stanley	R. Dougan.	4	Charlottetown.	T. K. Stanley.	Employee.	Attempting to get on train in motion.	Knee injured.	
Aug. 21	7.00 p.m.	5	Accommodation.	D. McKenna.	R. Dougan.	4	Tignish	R. McDonald.	do	While coupling cars.	Hand injured	
Sept. 6	11.15 a.m.	Sp1	Passenger	F. Kelly	N. D. Armour.	4	Kensington	C. E. Robertson.	Passenger	Slipped and fell under coach while attempting to get on train in motion.	Fatal.	
Nov. 26	10.30 a.m.	Sp1	Freight.	A. Gillis	R. Dougan.	4	Railway Junction.	A. Gillis.	Employee.	Fell off flat car while stunting.	Side and wrist sprained.	
do 30	2.30 p.m.	Sp1	Working.	G. Tanton.	R. Dougan.	16	Summerside	F. McDonald.	do	Unloading draw-bar.	Hand and arm bruised.	
Dec. 29	4.00 p.m.	7	Accommodation.	J. Macdonald.	A. J. McLaine.	21	Mount Stewart.	J. McKenna.	do	Loading baggage.	Back sprained.	
1895.												
Jan. 28	6.30 a.m.	2	Accommodation.	J. R. McKee	J. Hunter (N. D. Armour.)		St. Louis.	J. Gallant.	do	While getting off train fell between flanger and platform	Ribs fractured and injured internally.	
Mar. 24	1.05 p.m.	Sp1	Mail.	A. Gillis	N. D. Armour.	14	Mount Edward Crossing.	(N. D. Armour.) (J. Sweeney.)	do	Engine struck a cow and left track going down embankment and turning over on side.	Ribs broken and head cut.	
June 5	6.15 a.m.	2	Accommodation.	J. Thomson	H. Craswell.	15	St. Louis.	Geo. Tanton.	do	Unloading freight.	Head and shoulder injured. Hand injured	

## APPENDIX No. 6.

NORTH BEND, B.C., 5th October, 1895.

SIR,—I have the honour to report on the work done by the Canadian Pacific Railway Co. between Emory and Savonas, under the award of the arbitrators, Hon. John A. Boyd, Thos. C. Keefer, and Charles C. Gregory, from the date of the award, 6th July, 1891, to 1st September, 1895.

The total award of the arbitrators was \$579,255.20, of which \$202,675.20 was for work done before the date of the award, the balance, \$376,580, was for work still to be done between Emory and Savonas on contracts 60, 61, 62 and 63.

The following statement shows the amount expended each year :—

No. of Contract.	Amount of Award.	AMOUNT EXPENDED.					Balance on 1st September, 1895.
		1891-92.	1893.	1894.	1895, to 1st September.	Total.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
60	39,389 00	35,122 93	1,539 97	977 02	244 85	37,884 77	1,504 23
61	190,889 00	108,336 78	54,660 72	16,773 14	64 81	179,835 45	11,053 55
62	94,331 00	32,047 92	22,356 84	20,962 09	5,507 72	80,874 57	13,456 43
63	51,971 00	2,157 70	2,536 23	3,980 75	12,622 55	21,297 23	30,673 77
Total.	376,580 00	177,665 33	81,693 76	42,693 00	18,439 93	319,892 02	56,687 98

The work done on the award consists chiefly in trimming and reducing slopes, either by removing boulders and other materials by hand, or by taking a steam shovel cut at toe of slope, the material removed being used in both cases for filling trestles, widening banks, etc. A number of retaining walls have also been built on the award, and in several places the alignment has been improved, curves being flattened or replaced by tangents.

Besides the award money, the company spent about \$550,000 on improvements between Emory and Savonas since 1891. This has been used to supplement the award at certain points, to build culverts at trestles being filled from the award, to erect steel structures in place of wooden bridges and for other improvements.

The principal improvements effected are as follow :—

## CONTRACT 60.

*Emory to Boston Bar, 28 miles.*

This contract being through the cañon of the Fraser River, the slopes are generally long and rocky and bluffs are numerous. The principal work on this section consists in trimming slopes, removing dangerous rocks and trees from slopes and bluffs, and stripping loose material from rock cuts and bluffs. This has been well done, and the result is that there are now very few rock slides or loose rocks rolling down on the track.

At several points the river bank has been protected by boulder walls or riprap.



## Department of Railways and Canals.

Seven steam shovel cuts were taken on this contract, improving the slopes at these points and furnishing material for filling the trestles. At each of these steam shovel cuts the track has been shifted and the line straightened. A few other changes have been made to the alignment on this contract.

There were a number of wooden "grasshopper" trestle bridges on this section, seventeen of these have been replaced by masonry retaining walls to grade. Besides these, forty trestle bridges have been replaced by solid earth embankments.

Trestle bridges Nos. 280, 285 and 325 were filled, but the freshet of last year washed the embankments away and the line is again on the trestle at these points. At structure 325 a dry wall was built 70 feet below the track and the balance of the fill was made up of rock, carefully laid, all of which was torn out by the flood.

The culverts in the new banks on this contract are generally iron pipes from 18 to 36 inches in diameter, laid with cement joints. In a few cases masonry box culverts are used and there are three masonry arch culverts; one at Gordon Creek of 12 feet opening, one at Saw-mill Creek 14 feet opening and one at Chapman's Creek, 8 feet opening, all full centre arches.

At Spuzzum River the old wooden bridge has been replaced by a three span steel deck bridge with masonry piers and abutments. The centre span is a Pratt truss of 150 feet, the side spans are plate girders 40 feet long.

At Tale Creek a 60-foot steel deck plate girder with masonry abutments has been erected.

At White's Creek the five Howe trusses of 100 feet span have been replaced by five steel riveted deck trusses resting on the old wooden towers which have been strengthened.

At structure 330 a similar 100-foot steel span with two masonry piers replaces the old Howe truss.

At Skuzzy Creek, structure 351, a steel riveted deck truss of 125 feet span with two masonry piers has been erected.

The approaches to the steel spans in the three last bridges are still on the old trestle work.

The amount of award on this contract is nearly all expended. There is still some work to be done at structure 340 and a few slopes to be trimmed.

### CONTRACT 61.

#### *Boston Bar to Lytton, 30 miles.*

The banks on this section are generally of much softer material than on contract 60 and steam shovel cuts were generally taken for the purpose of flattening the slopes.

The steam shovels worked at twenty-seven different points on this section and moved large quantities of material, which were used in filling the various trestles.

Twenty-eight trestles were filled on this section, thirteen were replaced by masonry retaining walls to grade and 6 are partly filled.

At Salmon River, structure 382, a steel deck bridge has been erected composed of an arch span of 275 feet and three plate girder spans of fifty feet each, with massive masonry abutments, piers and pedestals. This bridge is a very fine structure.

At Skow Wash Creek three steel deck spans of 100 feet each have been erected with two masonry piers twenty feet high, and pile abutments.

There are still twelve trestle bridges to be filled on this contract.

Most of the trestle bridges filled on this contract are large structures and waterway is generally provided for by masonry box culverts or iron pipes. At structure 372 a twelve-foot masonry arch culvert has been built and an eight-foot arch at structure 374. At structure 405, Quoi Bek Creek, a large arch culvert of twenty-five feet opening is under construction.

The slopes along this section have been very much improved, boulders and trees have been removed and the slopes flattened. At several points the alignment has

been slightly changed, either to throw the track away from the foot of the slope, or to reduce the curvature.

A number of boulder walls have been built to protect the toe of the bank from the wash of the river. The slope of these walls varies from six inches to twelve inches to the foot, they are standing well and support the pressure of the bank without showing any sign of movement. At structure 417 a boulder wall with a batter of eight inches to the foot and 85 feet high has been built to catch the toe of the embankment being made.

The cantilever bridge over the Fraser at Cisco was repaired last year, loose rivets replaced, &c., and the bridge painted white, the same colour as the other steel structures on this division.

There is not much more award work to be done on this contract. There is a little trimming of slopes still to be done and a heavy shovel cut will have to be taken in the high sand slopes at Kanaka Bar.

#### CONTRACT 62.

##### *Lytton to Junction Flat, 28 miles.*

The most important improvements on this section are the changes made in the alignment. The line as constructed was very crooked, but it has been much improved in this respect and the curvature greatly reduced.

Steam shovel cuts have been taken at twenty-three different points and at each of these cuts the line has been changed, and changes have been made at many other points.

The principal changes in alignment are as follows:—

One mile east of Lytton a steam shovel made a long cut and the line was straightened for about 1,800 feet, giving a tangent of that length instead of a line with three curves, putting the track on solid ground and doing away with several trestles, bridges and some wooden cribwork.

At station 1378 the line is thrown in on to the solid for about 1,000 feet, doing away with two curves.

East of Gladwin a change of line is being made which will do away with four or five curves.

Between structures 535 and 542 a long cut was made with a steam shovel which admitted of the line being made straight for 3,000 feet, doing away with four curves 1,200 feet long.

East of Drynoch the alignment has been changed for about a mile, doing away with several reverse curves.

Through the Drynoch Mud Slide a heavy steam shovel cut was made and the track changed for about a mile reducing most of the curves and doing away with one long 8 degree curve. Through the slide the line was thrown in and put on a higher level to counteract the sinking movement which takes place here.

At many other places minor changes have been made in the alignment, flattening or removing curves, increasing the length of the tangents, and placing the track in a safer position. Special care has been taken to do away with as many reverse curves as possible.

One hundred trestle bridges have been filled on this contract and 13 are partly filled, leaving 43 yet untouched.

The waterway through the new banks is provided by masonry and cedar box culverts and boulder drains. A large number of these drains has been put in on this contract. They serve the purpose well enough in cases in which there is very little water to pass, but they are not suitable at points where a sudden rush of water may occur. Several washouts have already occurred.

In 1891 several concrete retaining walls to grade were built on this contract to replace cribwork. These walls have stood very well, but none have been built since, as masonry walls are found to be cheaper.

## Department of Railways and Canals.

A number of masonry retaining walls have been built on this contract, a few of them are to grade, but most of them are some distance below the track, to hold the toe of the bank and reduce the quantity of filling.

A boulder wall has been built at the foot of the bank east of Nicomen Creek. This wall is about 1,500 feet long. At one point it was undermined and replaced by a masonry wall, but the rest has stood very well.

The slopes along this contract have been much reduced and trimmed, but there is still a good deal of work to be done, the work on some of the awards having hardly been touched.

### CONTRACT 63.

#### *Junction Flat to Savonas, 40 miles.*

There has not been much work done on this contract.

Three cuts have been taken by a steam shovel, one of them at station 1049 being a very heavy one in a high bluff of clay and gravel.

Five trestle bridges have been filled, and 14 are partly filled.

At limestone bluff, stations 43 to 52, a large quantity of rock has been removed and the line straightened.

At each end of this contract a good deal of work has been done trimming and reducing slopes, but very little work has been done about the middle of the section. The bulk of the work on this contract has still to be done.

A number of earthenware pipe culverts, 24 inches in diameter, have been put in on this contract. They are laid with cement joints and masonry ends. These are the first earthenware pipes to be used on this division and have not been in long enough to give an idea of how they will act.

West of contract 60, between Emory and Port Moody several structures have been filled. Two bridges, Ruby Creek and Coquitlam River, have been replaced by riveted steel structures with masonry pins and abutments, and at Pitt River and Harrison River steel plate girder swing spans with 50 foot arms have been erected.

The work done along the award sections has resulted in great improvements to the line. The work throughout is well done and good judgment is used in the methods employed in doing the work.

The stone in the retaining walls, bridge piers, arch and box culverts is a gray syenite, very hard and with good cleavage. This is a very fine stone and being generally used in large blocks makes very massive structures. It is taken from the quarries at Sea Bird Bluff and Camp 16. A few walls on contract 62 are built of red basalt. All the masonry is laid as uncoursed rubble, very little cutting being done.

The cement used until this year was English Portland cement. This year the company is using a cement manufactured at their works at Vancouver, which sets well and gives satisfaction.

On contract 60 at a few places, the rock under the walls has shown signs of weathering and of decay. At these points the walls have been underpinned and the foundation protected.

At two structures, 316 and 374, the material has been filled in by hydraulic. This is a cheap way of handling material, but the protection work necessary for holding the material in the bank is expensive and adds very much to the cost of the fill.

In the enumeration of trestles and structures I have given above I have not counted the small beam culverts which are all of wood and are very numerous.

The exceptionally high water of last year came over the rock protection of the banks and caused a good deal of damage. In many places the bank was cut away and the track washed out. This occurred especially along the Thompson River on contracts 62 and 63. The damage has generally been repaired by building a cribwork in the river, at the toe of the bank, to above high water mark and filling in the bank behind. Some of this cribwork is very long. East of Nicola River there is

1,200 feet of cribwork at one point, the cribbing at Thompson's siding is 1,600 feet, and at mile 192 the cribbing is 1,200 feet. This cribwork is built of round cedar logs, filled with stone and is a cheap and good protection for the banks.

From Basque siding to tunnel 21, a distance of 3 miles, the line is sinking at intervals and sliding towards the river, and has to be lifted and shifted continually at one point or another. West of the tunnel the alignment has been changed for about 1,800 feet, being thrown in 200 feet from the original line.

The wooden bridges which still remain have almost all been supported on trestle work to diminish the strain on the members. The old trestles have been partly renewed, from time to time, to keep them in good order.

The award should be practically exhausted next year. The work is all well under way and another season should finish it.

I have the honour to be, sir,

Your obedient servant,

G. J. DESBARATS,

*Inspecting Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer Railways and Canals,  
Ottawa.

# Department of Railways and Canals.

## APPENDIX No. 7.

### SAULT STE. MARIE CANAL.

SAULT STE. MARIE, ONT., 5th October, 1895.

SIR,—I have the honour to submit the following report upon the work of construction of the Sault Ste. Marie Canal during the fiscal year ended 30th June, 1895.

At the end of the last fiscal year the lock walls had been built, the culverts nearly finished and the main portion of the excavation for canal and entrances taken out, but there was still much to be done putting in the machinery for working the lock gates and valves, raising and hanging the gates, excavating the large dams necessary for the construction of the lock and canal and finishing up the many details of a work of this size.

As the works approached completion the dams were reduced in size as much as possible to save time, but this had to be stopped after a time as a fissure in this very seamy rock formation was uncovered, about 40 feet above the upper dam and the water in large quantity found its way through seams in the rock under the dam and into the works, which for a time caused much trouble and anxiety.

On the 24th September, 1894, the water was let into the lower reach and the lock gates, which had been built in the bottom of the lock, were rapidly raised and hung in place by means of a floating pontoon built for the purpose. On 10th of October the lower gates being in place, the water was let into the upper reach and both dams were dredged out as rapidly as possible, but the lower part of these dams being of rock delayed the work considerably. It is a matter for congratulation that in a work of this magnitude and built so quickly, that no leaks of the smallest consequence were found when the water was let in and the contractors deserve great praise for the material and workmanship invariably used.

A pipe of 6 feet 8 inches (inside diameter) has been laid down to supply power to the machinery in the power house. This runs along the back of the north wall of the lock to within about 70 feet of the power house and then branching off into two 5 feet pipes, is carried into the power house and connected with the turbines which can be worked separately or together as desired. Two 5 feet discharge pipes carry off the water from the power house into the canal immediately below the lock.

An electric plant has been put in for working the lock gates and valves to avoid the trouble and delay with hydraulic power during cold weather and for lighting the canal. The power for driving the generator is obtained from two 45-inch horizontal turbines of 150 H. P. which also are used for pumping out the lock when required, by connecting with two 20-inch centrifugal pumps of 16,000 gallons per minute capacity each and empty the lock in about seven hours. A third turbine (13 inch horizontal) which can be worked by either of the inlet pipes, has also been put in to drive a 3 K. W. dynamo for working the incandescent lights in the building.

The lighting apparatus put in consists of a 40 light  $9\frac{1}{2}$  ampere wood arc machine, which at present supplies 33 arc lamps of 2,000 candle power each spread along both sides of the canal, with reserve for additional lights when the entrance piers are finished and for range lights at both entrances.

Three of the five pairs of lock gates with the two sets of valves are worked by this electric power by means of 5 motors of 25 H. P. on each side of the lock with submarine cables heavily armoured to conduct the power circuits across the canal. One pair of these gates has been provided in case of any accident occurring to the lower main gates and the same precaution has been taken for the upper main gates by letting a contract to Messrs. J. & R. Miller for building a spare set which will soon be completed. The other two pairs of gates are guard gates, only used when the lock is being pumped out, and are worked by hand winches which have been supplied.

Considerable trouble was experienced with the prism walls, the lower portion of which up to 6 inches below low water was built of cribwork in winter, and in the spring, when the frost came out of the ground, was in some places bulged out by the soft material behind. Timber bracing was introduced and the space between them and the face of the rock was filled with concrete which put a stop to all further movement and also protected the face of the rock, which is a stratified sandstone sometimes friable and rotten, with beds of clay between the strata over a foot in thickness at times and frequently the beds of rock are very thin, therefore the wash from passing boats would in time have damaged the foundations of the wall. On top of this cribwork a very solid random coursed wall of large blocks of stone laid in natural cement and pointed with Portland cement, has been built on a flooring of timber below water level to prevent unequal settlement and the result has been very satisfactory.

The crib piers of the entrance channels are now practically finished. The length at the lower entrance is 1,200 feet on the north side and 930 feet on the south, and at the upper entrance 450 feet on north side and 1,250 feet on south. This gives a reasonable amount of dock accommodation, which it is thought will be sufficient for the present.

Dredging and cleaning out the approaches to the canal has been kept up steadily and is now practically finished with the exception of raising some boulders which although not interfering with the present scale of navigation of St. Mary's River would do so when the dredging now going on at Sailor's Encampment is completed, and is part of the contracts. These boulders, which have been found in great numbers and frequently of very great size have caused great trouble and delay as they cannot be dredged and have to be taken out by divers and sometimes blasted. Both entrance channels have been well marked out with long spar buoys fastened to heavy stone anchors.

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

WILLIAM CRAWFORD,

*Engineer in charge.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer Department Railways and Canals,  
Ottawa.

## SOULANGES CANAL.

ENGINEER'S OFFICE,

COTEAU LANDING, P. Q., 23rd August, 1895.

SIR,—I have the honour to report as follows:—

The total value of work let on this canal is, at contract rates, about \$3,500,000.

The subjoined list gives the names of the contractors and the dates of the various contracts:

Sections Nos. 1 & 2.	Archibald Stewart .....	24th Sept., 1892
do	3. J. & M. O'Leary.....	27th Mar., 1893
do	4, 5 6 & 7. George Goodwin.....	9th May, 1893
do	8. Charles H. Raynor.....	29th Dec., 1892
do	9. Randolph Macdonald.....	30th Jan., 1893
do	10. Rogers & Taylor.....	24th Dec., 1892
do	11. Geo. Goodwin, Thomas Feeney Poupore & Fraser.....	11th May, 1892
do	12. O'Brien & Son, Geo. Goodwin	9th May, 1893
do	13. Randolph Macdonald.....	24th Sept., 1892

## Department of Railways and Canals.

These contracts do not include the cost of cement, superstructure of bridges, the lock gates and their machinery, or the power-house and electrical apparatus for operating the canal.

For a description of the line under construction, see my reports dated 5th November, 1892, 4th October, 1893, and 18th August, 1894.

The present condition of the works may be briefly described as follows :

### SECTIONS NOS. 1 AND 2.

Work on these sections was begun in 1892. Up to 30th June last about 200,000 cubic yards of earth and 35,000 of rock were taken out. At the Rockland quarry, 12,500 cubic yards of cut stone, and 25,000 cubic yards of backing are piled. Nothing has however been done towards the delivery of this material on the sections, where there are about 100,000 cubic yards of masonry of all kinds to be built. In January last I submitted a proposal to reduce the number of locks at the Cascades end from four to three: the lifts to be  $23\frac{1}{2}$  instead of  $17\frac{1}{2}$  feet each. This change has been approved of, and will be carried out. But unless the work is at once vigorously pushed on this contract, the completion of the canal will be greatly delayed.

### SECTION No. 3.

About two-thirds (400,000 cubic yards) of the excavation of this section is done. The whole of the work, including the construction of the St. Antoine road bridge, can be easily completed in 1896.

### SECTION NOS. 4, 5, 6 AND 7.

These sections were grouped into one contract for the reasons stated in my last report. Over a million yards of earth were moved up to the close of 1894. This consists of the top part of the excavation which has been hauled to form the sides. The remaining million of yards are chiefly blue clay with long hauls. The contractor has practically abandoned the work after doing the easiest part of it: and no stone whatever has been delivered on or prepared for section No. 4, where a lift lock, guard-gates, regulating weir, &c.—in all about 40,000 cubic yards of masonry—are to be built.

### SECTION No. 8.

Work proceeds steadily on this section, a large part of which is in heavy blue clay. The amount taken out to the 30th June was 433,174 cubic yards. All the 10 foot pipes at the à la Graisse culvert were in position last fall and partly concreted. During the winter they were damaged by the ice, but have since been put together with angle irons and bolts so as to make a strong and permanent job. The concreting of the culvert is now in progress, and the whole will be completed during the present season.

### SECTION No. 9.

The excavation is being continued by dredging in the manner described in my last report. 338,000 cubic yards were taken out to the close of the fiscal year.

### SECTION No. 10.

The River Rouge culvert is completed and the canal banks are being formed over it. The pitching of the sides of the diversion channel is in progress. The earth work proceeds slowly, but the whole of the work of this section can be completed next season.

SECTION No. 11.

This work was originally let to George Goodwin—then transferred to Thomas Feeney—and is now in the hands of Messrs. Poupore & Fraser. The tubes of the Delisle culvert are in position and concreted over. This structure, together with the road bridge across the north end of it, will probably be completed this fall, but in general the work of the section is not proceeding satisfactorily.

SECTION No. 12.

Nothing has been done on this section since the fall of 1893 when it was abandoned by George Goodwin.

SECTION No. 13.

On the north side of the entrance at Lake St. Francis the cribs are all in position and a portion of the concrete wall along their front has been built. The cribs and wall on the south side are in progress. The swing bridge to carry the Canada Atlantic Railway over the canal is completed and in use. The progress of the excavation is slow, but the material is hard.

Out of a total of about 6½ million yards of earth about 3½ millions were taken out to the 30th June last. 92,000 cubic yards of rock were also excavated. Of the masonry and concrete, amounting to about 200,000 cubic yards, 11,250 cubic yards were done. The quantities of earth and rock on each contract are approximately as follows:—

	C. yards.	Value at contract rates.
Sections No. 1 and 2, to 30th June, 1895 .....	236,700	} \$967,712.
do 3 to 30th June, 1895.....	401,000	
do 4, 5, 6 and 7 to 30th June, 1895....	1,059,713	
do 8 to 30th June, 1895....	433,174	
do 9 do .....	338,800	
do 10 do .....	321,350	
do 11 do .....	264,084	
do 12 do .....	152,987	
do 13 do .....	466,025	
	3,673,833	

A summary of the progress estimates of each section to 30th June, 1895, is as follows:—

		Work done.	Materials delivered or prepared.	Totals.
		\$ cts.	\$ cts.	\$ cts.
Nos.	1 and 2.... Archibald Stewart.....	123,723 35	185,697 00	309,420 35
do	3.... J. & M. O'Leary .....	82,235 76	40,275 00	122,510 76
do	4, 5, 6 and 7.... George Goodwin .....	278,384 35	1,368 00	279,752 35
do	8.... Charles H. Raynor .....	129,382 81	12,162 40	141,545 21
do	9.... Randolph Macdonald.....	66,704 50	8,412 50	75,117 00
do	10.... Rogers & Taylor.....	129,651 40	15,842 50	145,493 90
do	11.... Poupore & Fraser .....	152,581 75	10,549 00	163,130 75
do	12.... George Goodwin.....	37,973 02	238 50	38,211 52
do	13.... Randolph Macdonald.....	186,055 50	54,347 50	240,403 00
Totals.....		1,186,692 44	328,892 40	1,515,584 84



## Department of Railways and Canals

A system of cement "short" tests has been for some time established at this office, where a fair knowledge of that material is always obtained before it is permitted to go into the work. The results have proved quite satisfactory. The contracts let so far are as follows:—

1. Francis Hyde & Co., Montreal, 5,092 barrels.
2. C. I. de Sola, Montreal, 15,000 barrels.
3. Bellehouse, Dillon & Co., Montreal, 25,000 barrels.

The brands are "White Bros.," "Josson" and "Condor." The two latter are Belgian cements of excellent quality. Up to the 30th of June last a total of 21,309 barrels were delivered—11,466 used in the works—and there were on hand at that date 9,843 barrels. The delivery still goes on.

The foregoing brief statement will show that the work, as a whole, progresses slowly. A considerable effort would now have to be made to open the canal in the spring of 1898. As a matter of fact nothing is being done on section 12 where there are about 100,000 cubic yards of rock to excavate. On sections 4, 5, 6 and 7 the earthwork is practically at a standstill—whilst on sections Nos. 1, 2 and 4 where there are about 140,000 cubic yards of masonry of all kinds to be built, not a yard has been laid to date.

I am, sir, your obedient servant,

THOMAS MONRO, M.I.C.E.,

*Engineer, Soulanges Canal.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer, Canals,  
Ottawa.

### DEPARTMENT OF RAILWAYS AND CANALS,

QUEBEC DIVISION,

SUPERINTENDING ENGINEER'S OFFICE,

MONTREAL, 26th August, 1895.

SIR,—I have the honour to hand you herewith my report on the canals under my charge for the fiscal year ended the 30th June, 1895. The traffic on these canals has been conducted in a most satisfactory manner during the year, no interruptions of any consequence having occurred.

The various canals have been closed and opened as shown in the following table:

#### CLOSING AND OPENING OF NAVIGATION.

	Closing.	Opening.
Lachine Canal.....	30th Nov., 1894.	30th April, 1895
Beauharnois Canal.....	30th do	1st May do
Ste. Anne Lock.....	25th do	27th April do
Carillon & Grenville Canals.	30th do	29th April do
Chambly Canal. ....	30th do	1st May do
St. Ours Lock.....	26th do	15th April do

I will content myself with giving details of the most important items of repairs in connection with the various works, there being no interest to any one in reciting ordinary current work done.

## LACHINE CANAL.

## REPAIRS.

Among the most important items of repairs done during the year the following may be mentioned:—

While the water was out of the canal, viz., between the 13th and 30th April, the breast wall of old lock No. 3 which was in a very dilapidated condition, was carefully repaired; the oak flooring of the waste weir at Côte St. Paul removed; the retaining walls along the canal banks more or less rebuilt, several boulders removed from the channel between lock No. 2 and Wellington Bridge, and all the structures and lock machinery examined and put in good order.

During the season of navigation, Mill Street had to be thoroughly repaired. After having been carefully scraped, a large quantity of iron dross was spread on it, which made it good for the rest of the season.

The breakwater at the head of the entrance pier at Lachine had to be partly renewed, the tamarack sheeting was taken off and reversed so as to bring above water the portion that was still sound, and the oak covering on top was entirely renewed. A large quantity of stone and clay, taken from the spoil bank near the Lachine Water Works was deposited into the pier in places where the filling had settled. A new set of stop logs had to be provided for the supply weir at the upper end of the canal.

## INCOME.

Under this head, some important work has been done here, viz., the overhauling of the stone mill purchased from Messrs. W. & G. H. Tate to convert it into a power house and electric station; the building of stores and shops and the cleaning of the canal yard, wherein materials and scraps of every kind had been allowed to accumulate for years. The work on the stone mill was commenced early in the spring. This building is about 60 x 50 feet and two stories high. The walls were found to be in a very shaky condition in many places. These portions had to be taken down and rebuilt, and new windows and doors put in. The framing for the floors has been made of iron; materials from the old Wellington Bridge being used for this purpose. The outside of the walls has received a good coat of cement mortar and the inside is now being whitewashed after the joints had been properly pointed.

Upon being examined, while the water was out of the canal in the spring, the flume in connection with the power house was found to be quite unsafe. It was therefore only temporarily repaired then, pending its reconstruction next spring.

The saw-mill, in the eastern end of the building, has been preserved and is being thoroughly refitted at the time of writing. This will prove a most valuable adjunct to the canal shops.

In the canal yard, on Mill Street, two large sheds 80 x 32 feet have been erected for the storage of timber, lumber, derricks, hoisting engines, &c. Timber and lumber from the old buildings was exclusively used in these sheds, which have been covered with Canada plates.

A very small quantity of new material had to be purchased in connection with the other buildings, which comprise two or three smaller sheds, a blacksmith shop, a stable, and stores for the stock carried for current use. The stores, three in number, are of solid brick, on good stone foundation and two stories high. Above the centre one is a lodging for the man in charge.

A double line of drain pipes has been laid in the yard to carry off the surface water, and the yard itself levelled up to an uniform surface with clay covered up with a layer of cinders well rolled down. All the new buildings have been so located that in case of a fire starting in one of them, the others might easily be protected. However, as a matter of greater security, I would recommend the placing of an hydrant in the centre of the yard.

## Department of Railways and Canals.

The old carpenter and machine shops have been entirely overhauled and rendered as efficient as possible pending the construction of new enlarged ones in a position better calculated to meet the wants of the canal.

### CAPITAL.

#### *Dredging for 22 feet between Locks Nos. 2 and 3.*

This work was resumed at the beginning of the season with the two canal dredges, but a month later dredge No. 1 which is over forty years old became so leaky that she had to be laid up and the work continued with dredge No. 2 only.

At the end of the year the channel in basin No. 2 had been considerably widened and a cut averaging forty-five feet in width made from the Wellington bridge to a point opposite Montmorency Street, a distance of about 1,200 feet.

The quantity of material dredged out amounted to 56,850 cubic yards. Most of this material was deposited on the guard pier now being built in the harbour of Montreal by the harbour commissioners.

In connection with this work three large scows and forty dumping boxes were built during the winter months to replace old ones no longer fit for use.

The expenditure, including some \$5,000 for the above mentioned scows and boxes, amounted to \$21,160 which makes the cost of the excavation about 30 cents per cubic yard.

The following is a synopsis of the work done by dredge No. 2 during the year :

Number of working days.....	163
Delays occasioned by rain.....hours	95
do do breakdown of machinery..... do	19
do do tug, derrick, navigation, &c .... do	174
Days during which dredge was working on other works....	5
Number of scows filled.....	1,895
Quantity excavated (measured in the solid) cub. yds.....	56,850

#### *Lake St. Louis Channel.*

This channel will be 300 feet wide at bottom and 16 feet deep at low water.

The Weddell Dredging Co. have been awarded the contract for it and commenced work on the 10th June last. They are progressing satisfactorily.

This work as well as the dredging of the lower section of the Lachine Canal, is under the charge of Mr. L. S. Pariseau, C. E.

#### *Deepening between Locks Nos. 3 and 5.*

This work is being done to ensure a depth of 15 feet in the various reaches of the canal as contemplated at the time of the enlargement. All the locks, bridge piers, culverts, &c., have been built in accordance with this proposed draught, but the prism was only made 13 feet deep at the time.

The contract for removing the two additional feet was awarded on the 22nd September, 1894, to Messrs. McNamee & Mann, and operations commenced on the 10th May last.

The material dredged out is being deposited in deep places in Lake St. Louis.

#### *Lachine Drainage System.*

The Lachine drain which had been under contract with Messrs. Heney & Borthwick since 1891, was completed by them in October, 1894.

It consists of an open drain 16,700 feet long and of a brick sewer at the upper end about 6,425 feet in length.

*Côte St. Paul Drain.*

Several properties on the south side of the Lachine Canal which naturally drained into River St. Pierre having been deprived of drainage facilities by the enlargement of the canal the surface water thereon had to be carried to the above named stream by means of a line of pipes connecting with the Côte St. Paul culvert.

The work, which was completed in August, 1894, was executed under contract by Mr. Peter Jackson.

Mr. L. G. Papineau, C. E., has had charge of the three last mentioned contracts.

## BEAUHARNOIS CANAL.

## REPAIRS.

Although the various structures on this canal, except the bridges, are old and unsound, they were kept in safe condition during the year, and no accidents of any kind have occurred.

A pair of spare gates for lock No. 12 was built and another pair has been put in hand. The long wharf above the guard-lock at Valleyfield, which was considerably damaged during the winter, had been partly repaired at the end of the fiscal year.

Two mooring piers at the lower entrance were carried away by the ice in May last. They will be rebuilt during the present season. A large quantity of stone taken out of the coffer dam built across the upper entrance in connection with the repairing of the guard lock and the rebuilding of the swing bridge close to it, is now deposited along the canal and will be used on the south bank between Valleyfield and St. Timothy.

The collector's house at Valleyfield has been pretty extensively repaired. Other buildings, bridges, towpaths, fences, banks, locks and lock gates, &c., have received the usual attention.

## INCOME.

Under this head I have to report here the renewing of the swing bridge at Valleyfield, the overhauling of the guard-lock foundation, the replacing of the old wooden bridge across the Lost Channel at St. Timothy by a steel span resting on masonry abutments, the completing of the Bellerive drain and the purchasing of some seventy cubic yards of cut stone for repairing the various locks on the canal.

*Swing bridge at Valleyfield.*

The pivot pier for this bridge having to be renewed, the first step to be taken was the building of a coffer dam across the upper entrance to unwater the works. This dam was 150 feet long, 15 feet wide and 15 feet high. It consisted of a continuous cribwork sheeted with 3-inch plank and filled with boulders. In order to minimise the quantity of clay necessary to render it water tight, a sheet of 15-oz. duck canvas 160 feet long, twenty-one feet wide, and costing \$134, was stretched on the up stream face of the dam and covered at its foot with 4 feet 6 inches of clay. This proved as effective as could be desired, no leakage having occurred during the progress of the works. The quantity of clay thus used was not more than 100 cubic yards against at least 950 which would have been required without the canvas. Counting the clay at fifty cents per cubic yard, the saving in the cost of the dam was therefore about \$300.

*Pivot pier.*—This pier is built of coursed masonry the stone for which was procured from the Lachine Canal. Its dimensions are the following: Base, twenty-two feet square, top, twenty feet square with a height of about twenty feet. The side facing on the canal is boucharded. It has been connected with the wing wall

## Department of Railways and Canals.

of the guard-lock by a block of masonry of the same description and eighteen feet long.

*Cribwork.*—The rest pier on the opposite side of the canal forms part of a cribwork sixty feet long which was renewed from the top to a depth of eight feet.

Another piece of cribwork thirty-eight feet long was built on the upstream side of the pivot pier to the mouth of the supply weir.

*Supply weir.*—The walls at the mouth of this weir were taken down and rebuilt in cement masonry on a length of twenty feet, checks being provided in the masonry for future repairs to the walls of the chamber of the weir.

*Superstructure.*—The bridge proper is of steel, ninety feet long, sixteen feet ten inches wide with a foot path on one side four feet five inches in width. It was furnished and placed in position for the sum of two thousand dollars by Messrs. A. & E. Loignon of Montreal.

*Guard-lock foundation.*—This lock had never been unwatered since its construction in 1843. Its foundation was found to be in a very bad condition. The flooring was riddled with large holes and the puddling underneath as well as under the mitre sill platforms washed away to an average depth of four feet, so that the water had a clear way through the foundation of the lock. The mitre sills were in such a condition that one had to be totally replaced and the other one partially so.

The void in gate chambers were filled with well rammed clay and those under the mitre sill platforms with concrete made in the proportion of one cement to two of sand and three of broken stone.

The flooring of the two gate chambers and of the platform below the lower mitre sill was replaced by one made of two thicknesses of two-inch pine planks properly breaking joints with each other. To do the above repairs the lock had to be kept dry during the whole month of April and this was attained by building at the lower wing walls, a clay dam six feet high at centre and by running a six inch pump day and night.

### *Bridge across Lost Channel.*

The old wooden bridge at this point, with its bulky stone piers, was an obstruction to the free flow of the water coming from the mills at Valleyfield, especially in winter when the ice frequently blocked it entirely.

The new structure which consists of a single steel span one hundred and sixty feet long, rests on two masonry abutments, built under contract by Mr. John C. Hague. The removal of the old bridge piers has increased the waterway by one hundred and four feet. The steel structure was furnished by the Dominion Bridge Co., Ltd., for \$2,287.

### *Bellerive Drain.*

A contract for the completion of this work was entered into with Mr. J. W. Grier, on the 31st August, 1894. Work was commenced by him at once and completed at the end of November in the same year.

This drain, the object of which is to carry off the surface water in the municipality of Bellerive and part of the town of Valleyfield, consists of clay pipes laid at an average depth of nine feet under the street level, and extends on a length of three thousand seven hundred feet from the Lost Channel to the foot of the dyke along Valleyfield bay.

The above works were under the direction of Mr. L. S. Pariseau.

### *Stone for Repairing Locks.*

This stone was procured under contract with Mr. James Wright. It was intended to lay it on the various Sundays during the months of May and June last, but instructions having been issued to only interrupt navigation on this canal between the

hours of 6 a.m. and 9 p.m. on Sundays, it has been impossible to do the work during the current year.

Only a few of the stones were laid in places where they were most needed. The balance will be so while the water is out of the canal next spring.

#### STE. ANNE LOCK.

The larger item of repairs at this place during the year was the replanking of the long pier above the lock, some sixty thousand feet B.M. of three inch hemlock plank being used in the work.

The only other important work of repair done here was the overhauling of the toll collector's house.

The lock walls, lock gates, lock gate machinery, buildings, fences, &c., received the usual amount of attention and were kept in good order all the year round.

#### INCOME.

The \$2,500 voted by Parliament under this head were expended in renewing the timber work in the north pier of the south channel from the water line to the top, on a length of some 900 feet. Two hundred feet more still remain untouched, but will be repaired during the present year out of the repairs appropriation.

#### CARILLON AND GRENVILLE CANALS.

##### REPAIRS.

Pointing lock walls, painting lock gates, bridges and buildings, repairing retaining walls, towpaths, fences, &c., have absorbed the usual amount of the appropriation.

Three sheds 72 x 33 feet were built at Carillon, Greece's Point and Grenville respectively for storing spare lock gates, &c.

The fire pumps purchased during the year have been placed in small sheds, one at Carillon and the other on the Grenville Wharf. This one has already been brought into use for extinguishing a fire at the wharf in June last.

The mooring pier at the lower entrance to the Carillon Canal was renewed from the water line to the top, and the filling, which had settled down, had to be raised. A couple of the guide piers at the upper entrance were also extensively repaired.

A wire fence  $3\frac{1}{2}$  miles in length was substituted for the old rail fence along the towpath on the Grenville Canal about midway between Grenville and Greece's Point.

#### INCOME.

##### *Puddle Trench, South bank of Grenville Canal.*

This puddle trench was intended to strengthen the south bank of the canal at a place where leakage was continually going on before.

In excavating for it the bank was found to require strengthening on two-thirds only of the length estimated, or about 600 feet.

This work could only be done while the water was out of the canal. Consequently the digging of the trench was performed as soon as the navigation was closed and the filling of it about the end of April.

The clay in the vicinity of the work being of poor quality, the trench was first lined on both sides with 2-inch hemlock plank driven to the hard soil or rock about two feet below the canal bottom and the clayey material then deposited in layers, well watered and rammed down.

The leakage has thus been completely stopped and the bank now appears to be perfectly safe.

## Department of Railways and Canals.

### *Swing-Bridge Pier at Guard-Lock—Grenville.*

As reported before, this pier, which formed part of the old lock masonry built over fifty years ago, was in danger of tumbling down into the canal and blocking navigation. The old masonry as well as some rock and filling were removed by the canal staff under the direction of Mr. H. G. Stanton during the fall. During the winter tenders were invited for the rebuilding of the pier, the department supplying the stone. The contract was awarded to Messrs. Nicholson & Stewart on the 14th January, 1895, and the work completed in a very satisfactory manner before the opening of the navigation.

Part of the stone used in this pier was brought from the Lachine Canal and credited to the Wellington bridge, it having formed part of the old abutments of that bridge. The balance was taken from the pier just torn down and also from a lot purchased for that purpose the year before.

### CULBUTE CANAL.

According to instructions contained in your letter of the 2nd November, 1894, this canal was permanently closed at the end of the month.

The lockmaster as well as the bridge-keeper at Chapeau were therefore discharged on the 1st December following, and the draw span in the bridge at Chapeau, after having been repaired, was properly fish-plated in order to avoid possible accidents.

Some surveys in connection with the claims for alleged damage to lands by the raising of the water in the Ottawa River above the Grand Calumet and Rocher Fendu dams were made by Mr. H. G. Stanton during last winter and reports on these claims forwarded to you later on.

In the course of February last, Mr. H. G. Stanton was instructed to remove these dams, which are now of no use. However, he had only just commenced carrying out his instructions, when I received orders to stop the work, which was done. Some sixty feet in length of the north end of the Grand Calumet dam had then been more or less blown up.

I have not yet ascertained what the effect of this has been either on the adjoining portion of the dam or the level of the water above.

### ST. OURS LOCK.

#### REPAIRS.

The only important item of repair to be recorded here, beyond the ordinary maintenance of the lock, gates, piers, fences, buildings and grounds, is the placing of some 150 cubic yards of field stone along the shore of the island below the dam. The currents created by this dam constantly wash away portions of the shore, and the above mentioned stone is used to protect the banks.

### CHAMBLY CANAL.

An interruption to the navigation on this canal occurred on the 10th September, 1894, when the lower gate of the lower entrance lock gave way under the pressure of the water above. This gate was replaced, after fourteen hours' work, by an old one which has done good service since. Spare gates for all the locks are gradually being built in order to meet possible accidents of this kind. All but three locks are now provided with them.

## REPAIRS.

As usual the canal was emptied on a Sunday in the month of September and all the structures were carefully examined and repaired where necessary. A portion of the wall at lock No. 2 had to be rebuilt during the winter, and the waste weir at Mile 6 well loaded with stone to secure it against the frost and water. This waste weir is not safe and will have to be rebuilt in a year or two.

The seats of bridges Nos. 3 and 6 were taken down and rebuilt, the space between the bridge abutments being widened at the same time in order to allow a freer flow to the water at these points.

Three new bridges were built during the winter and put in position in the spring.

The four culverts under the canal are more or less unsafe and require constant watching. They are all leaky and will require to be renewed. Except one, which may be of stone, they are built with timber and about sixty years old. When overhauling them I would recommend the use of cast iron pipes instead of timber in their construction.

The combined stream dredge and derrick mentioned in my last annual report has been built during the year. It was tested this spring and does its work very well. It will be of great help to the economical working of the canal. Both the machinery and wood work in connection with it have been executed at the canal shops.

## INCOME.

*Fence along canal.*—This fence was built in June last, the posts for it having been prepared at the shops, and the wire purchased during the winter. In connection with it a strip of land averaging nine feet in width was acquired from the farmers to widen the towpath. A large quantity (about 10,000 cubic yards) of good clay will be taken out of this strip and used for canal purposes.

*Rubble wall along highway.*—Five thousand five hundred and fifty running feet of this wall were built during the year. About 10,000 lineal feet of the bank on the south side is still unprotected by a wall and is gradually washed down. Another section about 5,000 feet will be done during 1895-96.

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

ERNEST MARCEAU,  
*Superintendent Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer, Railways and Canals.



# Department of Railways and Canals.

## LACHINE CANAL.

**STATEMENT showing the depth of the River Water on Mitre Sills of Old Lock No. 1, at Lower Entrance, and Lock No. 5, at Upper Entrance, during the fiscal year ended 30th June, 1895.**

Months.	Old Lock No. 1, Lower Sill.		Old Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	20 2	17 9	12 8	11 2
August.....	17 10	16 2	11 2	9 10
September.....	16 5	15 10	10 4	9 10
October.....	17 1	16 0	10 6	9 10
November.....	17 5	16 2	10 9	9 6
December.....	27 0	15 10	10 11	9 0
1895.				
January.....	31 10	26 7	11 10	9 6
February.....	27 5	23 1	10 6	8 3
March.....	24 2	22 0	9 6	7 10
April.....	34 6	20 9	13 1	9 2
May.....	21 7	19 3	13 0	11 5
June.....	19 6	17 5	11 9	10 9

## LACHINE CANAL.

**STATEMENT showing the depth of the River Water on Mitre Sills of New Lock No. 1, at Lower Entrance, and New Lock No. 5, at Upper Entrance, during the fiscal year ended 30th June, 1895.**

Months.	New Lock No. 1, Lower Sill.		New Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	22 4	19 11	16 10	15 4
August.....	20 0	18 4	15 4	14 0
September.....	18 7	18 0	14 6	14 0
October.....	19 3	18 2	14 8	14 1
November.....	19 7	18 4	14 11	13 8
December.....	29 2	18 0	14 8	13 2
1895.				
January.....	34 0	27 11	16 0	13 8
February.....	29 7	25 3	14 8	12 5
March.....	26 8	24 2	13 8	12 0
April.....	36 8	22 11	17 3	13 4
May.....	23 9	21 5	17 2	15 7
June.....	21 8	19 7	15 11	14 11

## BEAUHARNOIS CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of Lock No. 6, at Lower Entrance, and Lock No. 14 at Upper Entrance, during the fiscal year ended 30th June, 1895.

Months.	Lock No. 6, Lower Sill.		Lock No. 14, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	12 3	10 4	12 6	11 8
August.....	10 4	9 2	11 10	11 4
September.....	9 3	9 1	11 10	11 4
October.....	9 4	9 1	11 10	10 10
November.....	9 7	9 3	11 10	10 10
December.....	11 8	9 7	12 0	10 2
1895.				
January.....	13 10	11 9	12 0	11 0
February.....	22 0	12 11	11 11	9 10
March.....	18 3	11 0	11 8	10 1
April.....	13 7	11 0	12 5	11 6
May.....	13 1	11 9	11 8	11 2
June.....	12 6	10 2	11 6	11 0

## CHAMBLY CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of Lock No. 9, at Lower Entrance, and Lock No. 1, at Upper Entrance, during the fiscal year ended 30th June, 1895.

Months.	Lock No. 9, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	11 3	9 3	8 9	7 8
August.....	9 4	7 9	8 1	7 1
September.....	8 3	7 8	7 9	6 10
October.....	8 7	7 6	8 0	6 8
November.....	10 0	7 7	8 9	7 3
December.....	10 0	8 3	8 3	7 5
1895.				
January.....	9 9	8 5	8 2	7 9
February.....	10 5	8 9	8 0	7 8
March.....	10 10	9 9	8 0	7 8
April.....	17 2	11 14	12 0	7 10
May.....	15 0	12 9	11 4	9 8
June.....	13 0	10 8	10 6	8 9

# Department of Railways and Canals.

## St. Ours Lock.

STATEMENT showing the depth of the River Water on Mitre Sills of St. Ours Lock during the Fiscal Year ended 30th June, 1895.

Months.	Lock No. 1, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July .....	11 2	8 6	9 9	8 5
August .....	8 10	7 2	8 7	7 10
September .....	8 1	6 8	8 2	7 1
October .....	8 9	6 9	8 3	7 8
November .....	8 10	7 7	9 3	7 3
December .....	9 6	7 7	9 1	7 11
1895.				
January .....	10 11	8 9	8 8	8 0
February .....	9 4	8 0	8 5	7 6
March .....	10 5	8 6	8 10	7 10
April .....	18 6	10 8	14 11	8 11
May .....	14 10	12 0	12 6	10 10
June .....	12 4	10 0	11 1	9 6

## CARILLON CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of Locks Nos. 1 and 2, during the Fiscal Year ended 30th June, 1895.

Months.	Lock No. 1, Lower Sill.		Lock No. 2, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July .....	15 7	13 1	16 2	13 3
August .....	13 1	11 4	13 1	12 0
September .....	11 8	11 3	11 10	11 0
October .....	13 2	11 8	13 3	11 6
November .....	13 8	13 0	14 0	13 2
December .....	13 4	12 9	16 6	13 0
1895.				
January .....	13 4	12 10	17 0	14 0
February .....	13 3	12 4	14 6	12 3
March .....	12 5	11 7	12 3	11 8
April .....	17 10	11 10	18 6	12 0
May .....	18 8	16 3	20 0	17 2
June .....	16 7	14 10	17 5	15 0

## GRENVILLE CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of Locks Nos. 3 and 7, Grenville Canal, during the fiscal year ended 30th June, 1895.

Months.	Lock No. 3, Lower Sill.		Lock No. 7, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.				
	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	19 4	15 9	16 6	12 10
August.....	15 8	13 9	12 9	11 0
September.....	13 9	13 3	11 0	10 2
October.....	16 1	13 10	13 7	10 10
November.....	16 8	16 0	14 4	13 4
December.....	18 3	15 6	13 3	12 8
1895.				
January.....	20 8	18 0	12 8	11 11
February.....	23 0	20 8	11 9	11 2
March.....	22 6	17 0	11 6	10 11
April.....	22 9	16 0	19 6	11 6
May.....	24 0	20 8	20 6	17 3
June.....	21 0	18 0	18 2	16 0

## ST. ANNE'S LOCK.

STATEMENT showing the depth of the River Water on Mitre Sills of St. Anne's Lock, during the fiscal year ended 30th June, 1895.

Months.	Lock No. 1, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1894.				
	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	14 3	13 0	17 6	15 2
August.....	10 11	9 9	11 11	10 7
September.....	10 0	9 9	10 7	10 2
October.....	10 3	9 9	12 0	10 6
November.....	10 7	10 0	12 5	11 10
December.....	11 11	9 10	12 1	11 0
1895.				
January.....	11 11	10 7	11 11	11 2
February.....	10 11	9 4	11 4	10 7
March.....	10 0	9 1	10 8	10 3
April.....	13 1	9 10	15 11	10 6
May.....	13 1	11 9	16 7	14 7
June.....	11 11	10 9	14 10	13 4

# Department of Railways and Canals.

## TRENT CANAL.

SUPERINTENDING ENGINEER'S OFFICE,  
PETERBOROUGH, 15th August, 1895.

DEAR SIR,—I beg to submit the annual report on the works under my charge for the fiscal year ended the 30th June, 1895.

These works consist of the maintenance of the works at present constructed along the route between Trenton and Balsam Lake, and the survey and construction of the Peterborough-Lakefield and the Simcoe-Balsam Lake divisions.

### MAINTENANCE.

Navigation closed on the upper reach on the 23rd November, 1894, and opened again the 26th April, 1895. On the lower reach navigation closed on the 24th November and opened again on the 21st April, 1895. There was no interruption to navigation during the season. There was good navigable water on all the reaches during the season, there being from five to seven feet on the reaches. The latter depth could be maintained with very little dredging and by controlling the upper reservoirs in the interests of navigation.

It will be imperative as the construction of the canal goes on that these upper reservoirs be assumed charge of by the Dominion Government. With this object in view a survey was made during the winter of all the reservoirs and dams in the north country which will be alluded to more fully later on.

During the past spring the water barely reached the average spring height.

The total number of lockages was 3,670, which shows a steady increase in traffic. The number of lockages does not however fairly represent the traffic on this canal, as on some of the longer stretches the regular routes do not pass through any lock so no record is kept of it.

There was a number of new vessels added to the fleet on these waters during the past season. There is now twenty-five steamers on the upper reach and seven on the lower reach.

As the interests of navigation increase greater trouble is experienced in keeping navigation free from the interference of lumbermen in driving their logs. The Department of Public Works has made considerable expenditure in making and maintaining separate channels for the driving of logs in order to prevent their interference with navigation. Some further works are still necessary for the purpose.

Considerable trouble is caused by the lumbermen in their operations carelessly removing the buoys placed to mark the navigation channels. An example will have to be made of some of these lumbermen before this dangerous practice is stopped.

A brief description is given of the several works with the work done or repairs made.

### CHISHOLMS.

At this station there is a lock in first class condition and a canal 2,970 feet in length excavated out of the rock. Two fixed bridges across the canal prevent this lock from being used. The canal was cleared of sunken logs so that boats might enter the upper reach.

### HEELEY'S FALLS.

There is at this station a flat dam 567 feet in length with a waste weir and timber slide. A new waste weir was constructed in order that better control might be had of the water during the spring freshet. This dam is now in first class condition and retains the water at navigable height as far as Hastings a distance of fifteen miles.

## HASTINGS.

The works at this station consist of a lock, dam and swing bridge. A few minor repairs were done to the lock. The works are in good repair. The dam controls the water to the Peterborough lock a distance of forty miles.

## PETERBOROUGH.

There is a lock, dam and landing pier here. The lock is in good condition, but the dam is old and requires to be rebuilt. During the season a bad leak sprung below the platform of one of the sluices. On drawing off the water it was found necessary to put in six new mud sills with a puddle chamber at the upstream side. A new apron was also put in one of the sluices. The glance booms at the upper entrance to the lock were rebuilt. Snubbing posts were placed along the landing pier at the south end of the town. A number of boulders were removed from the shoals at "Yankee Bonnet" and Dangerfield.

## LAKEFIELD.

There is a sluice dam 263 feet in length and wharf 412 feet in length at this station. Both are in good condition. The dam was partly gravelled. This dam holds the water of Katchawannoe Lake at navigable height as far as Young's Point.

## KATCHAWANNOE LAKE.

There has always been a very bad shoal at the "Three Islands." This was dredged out so that now there is eight feet of water for a width of eighty feet.

## YOUNG'S POINT.

There is a sluice dam 256 feet in length which retains the water of Clear and Stony Lake. The dam is in good repair except the platform and stop log windlasses for the repair of which there is an appropriation at present voted. The lock here was constructed by the Ontario Government and is operated by them.

## BURLEIGH.

At this station there is a double lift lock with 25 feet lift, three sluice dams, one flat dam and one swing bridge. The works are all in good repair, with the exception of a leak in the main dam, which is about to be repaired. The valves and valve rods of the upper and centre gates were overhauled.

A glance boom and piers were built at the gut above the lock, in order to prevent vessels being carried against the bluff rock on the south side. This improvement has been greatly appreciated by the boat men.

## LOVESICK.

There is at this station a lock and five sluice dams and one flat dam. All are in good condition.

## BUCKHORN.

There is here a dam 450 feet in length (in which there are four sluices and 186 feet of flat dam), together with a lock and 660 feet of canal, and a swing bridge. They are all in good repair with the exception that the dam leaks, but this is being repaired at the present time.

## Department of Railways and Canals.

### BOBCAYGEON.

At this station there is a lock, 1,400 of canal and a sluice dam 604 feet in length. This lock has ever since it was constructed been very troublesome on account of the bad foundation it was built upon. A boiler plate bottom was put down in the lock chamber some years ago, but on account of the upper end not being properly spiked down, a few feet of the iron burst up. This bottom was properly fastened down so that now the lock is working most satisfactorily.

A fish pass of the "Hockin" plan was constructed in the dam. This has worked admirably and was built very cheaply.

The lock walls and the wall of the raceway were caulked and pointed.

### SCUGOG RIVER.

The dredging at the cut at the mouth of this river, which was started last year, was completed.

### FENELON FALLS.

There is here a lock with twenty-five feet lift, 1,060 feet of canal, a swing bridge, landing piers and dam which is composed of 115 feet of flat dam and five stop log openings. The lock gates were painted and otherwise repaired. A new sluice was made in the dam in order that the surplus water might be allowed to escape over the falls below and thus deaden the current instead of through the timber slide as formerly. This has been a great benefit to navigation, as before this sluice was built it was dangerous, if not impossible, except at low stages, to cross the current formed by the water coming from the slide. Now there is no more current at this point than at any other point of the river.

Minor repairs were made at several other points.

Twenty-five new buoys were put in to mark the navigation channel along the route.

### SURVEYS.

The work done under this head was as follows:—

The survey of the Peterborough-Lakefield and the Simcoe-Balsam Lake divisions.  
The survey of the upper reservoirs and dams.

Sections No. 1, on both the Peterborough-Lakefield and Simcoe-Balsam Lake divisions were got ready for letting and the land plans prepared for the purchase of right of way.

Land valuers were appointed for the purchase of the land necessary for canal purposes on both the above sections. The necessary land on section No. 1, Simcoe-Balsam Lake division, has been bought and paid for with a few exceptions where the titles are not clear. Agreements have been made with all the owners on section No. 1, Peterborough-Lakefield division, with the exceptions of those who it was found necessary to report in order that expropriation proceedings might be instituted.

The surveys on sections No. 2, on both the above mentioned divisions, and the necessary plans for the purchase of the right of way, were also proceeded with, with a view of getting them ready for letting.

A survey of the northern reservoirs and dams was made and a report accompanied by a plan, showing the water shed and a plan and section of each of the dams, with an estimate of the cost of each dam was sent to the department. It is absolutely necessary for the satisfactory working of the canal that these reservoirs should be assumed control of, and which can be the more cheaply done now before vested rights are established.

## CONSTRUCTION.

Work was commenced on section No. 1, Simcoe-Balsam Lake division by Andrew Onderdonk, Esq., on April 22nd, 1895. This section is about five and a half miles long and when completed will be for the most part through flooded land. The work on this section consists for the most part of excavation. There is besides the excavation to do the piers necessary for three highway bridges and one railroad bridge; the raising of the bed of the railroad for about 3,000 feet in length, a dyke, an embankment for an aqueduct leading to the hydraulic lift lock at the end of the contract, entrance piers, waste weirs, guard gates, &c.

By the end of the year the contractor had the greater part of his section cleared and considerable of it grubbed. The greater part of the stripping of the rock on the rock cut at the north end of the section was completed. Fine commodious boarding houses besides blacksmith shops, powder house, &c., were constructed. Part of the machinery arrived about the middle of June and the erection thereof was proceeded with.

The contractors had not started the work on section No. 1, Peterborough-Lakefield division, by the end of the fiscal year. The work on this section consists of the excavation of five short canals, five locks, four sluice dams, piers for highway bridge, entrance piers, guard gates, raising bed of railroad for 2,300 feet, &c.

The whole channel of the river from Lakefield as far as Nassau is utilized for the prism of the canal, except at the bends of the river where the short canals are cut, which serve the double purpose of straightening the alignment and provide locations for the several dams and locks.

The first survey and plans on which tenders were first asked for, for this section, followed the line of previous surveys and ran inland, thus making continuous canalizing for the whole length of the section. Now that it is decided to assume control of the upper reservoirs so that the flow of water during the spring freshet can be controlled, using the river bed is much preferable both in regard to cheapness in cost of construction as well as in the maintenance of the canal, and at the same time constructing nearly double the distance of the first line and at considerably less cost.

I have the honour to be, sir,

Your obedient servant,

RICHD. B. ROGERS,

*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer, Department Railways and Canals,  
Ottawa.



## Department of Railways and Canals.

STATEMENT showing the highest and lowest Water Level at each Lock on the Trent Canal for the Fiscal Year ended 30th June, 1895.

Station.	1894.											
	July.		August.		September.		October.		November.		December.	
	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
Hastings.....	7 8	6 11	7 3	6 9	7 1	6 9	7 2	6 10	7 2	6 4	6 10	7 5
Peterborough.....	7 3	6 3	7 3	6 6	7 5	6 6	7 3	6 9	7 6	6 7	6 4	6 0
Lakefield.....	5 9	5 3	5 4	5 0	6 0	5 4	5 11	5 2	5 6	5 0	5 6	5 2
Young's Point.....	7 4	6 0	6 0	5 10	5 10	5 9	5 8	5 6	5 6	5 4	5 6	5 4
Burleigh Falls.....	5 9½	5 6	5 3	5 0	5 5	5 0	5 6	5 0	5 9	5 6	5 6	5 0
Lovesick.....	6 5	6 0	5 10	5 8	6 2	5 8	5 8	5 6	6 2	6 0	5 0	5 0
Buckhorn.....	6 9	6 7	6 7	6 4	5 9	5 8	5 8½	5 4½	5 1	5 0	0 9	4 8
Bobcaygeon.....	6 7	6 3	6 8	6 1	6 8½	6 6	6 4	6 1	6 6	6 1	6 5	6 2
Fenelon Falls.....	5 11	5 9	6 1	6 0	6 2	5 10	5 4	5 2	5 8	5 4	5 10	5 6

Station.	1895.											
	January.		February.		March.		April.		May.		June.	
	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
Hastings.....	6 10	6 8	6 9	6 7	6 9	6 4	8 9	6 11	8 9	7 4	7 4	7 0
Peterborough.....	6 6	6 5	6 5	6 0	6 0	5 8	8 9	8 0	8 6	7 0	7 9	6 3
Lakefield.....	5 6½	5 4½	5 6	5 1	5 2	5 0	6 8½	6 1	6 5	5 11	5 11½	5 4
Young's Point.....	5 8½	5 7	5 8	5 4	5 3	5 2	8 6	7 0	8 1	7 1	7 11	7 6
Burleigh Falls.....	5 0	5 0	5 6	5 0	5 4	5 0	6 0	5 10	6 0	5 10	6 0	5 9
Lovesick.....	5 0	4 11	5 0	4 7	5 0	4 10	8 4	6 0	7 10	5 11	6 4	5 11
Buckhorn.....	5 1	5 0	4 11	4 9	4 6	4 5	7 7	6 0	7 1½	6 7½	6 9½	6 6
Bobcaygeon.....	6 0	5 6	5 8	5 6	5 5½	5 4	6 9	6 6	6 0	6 5	6 9	6 6
Fenelon Falls.....	5 0	5 0	5 3	5 0	5 4	5 2	6 7	5 4	6 2	5 6	6 0	5 7

RICHARD B. ROGERS,  
*Superintending Engineer.*

## RIDEAU CANAL.

SUPERINTENDENT ENGINEER'S OFFICE,  
OTTAWA, 11th July, 1895.

SIR,—I have the honour to submit the annual report on the works performed on the Rideau Canal, under my charge, during the fiscal year ended 30th June, 1895.

Navigation closed at Ottawa, 26th November, 1894.  
do do Kingston Mills, 19th November, 1894.  
do opened at Ottawa, 27th April, 1895.  
do do Kingston Mills, 30th April, 1895.

On all the levels ascending from Ottawa to the summit level (Upper Rideau Lake) the water was maintained on the main line of navigation, so as to give continually the required depth on the lock sills, throughout the entire season of navigation.

The summit level, however, owing to the long continued absence of rain, fell so low that from the month of October until navigation closed, the depth of water in Newboro' Cut was only 4 feet 4 inches and consequently only the smaller boats were able to go through to Kingston.

On the Perth branch navigation was stopped from 19th July to the 30th owing to the upper gates of the lower lock having been run into and carried away by the Str. "Rideau Belle" whilst entering the lock.

The spring freshets this year were passed through the waste weirs and bulkheads at the various lock stations without doing material damage, except at Black Rapid station, where a slight breach was made in the lower side of the dam; but which was checked before it became serious.

The principal repairs and works performed at the various lock stations and bridges along the line of the canal were as follows :—

## OTTAWA.

The two cut stone piers on lock No. 4 were taken down and rebuilt, the stone being furnished by contract with Messrs. C. B. Wright & Sons of Hull, and cut and laid by our own masons. Two pairs of oak sluice frames renewed. The chambers of locks 3 and 4 were grouted with Portland cement. The upper sluices on lock 8 were changed from hinged flanges opened by crabs and chains, to sliding vertical flanges opened by means of a rack and pinion, set in steel frames. This change was made on account of the trouble caused every year by debris accumulating in the old flanges, rendering them immovable, and necessitating a diver being constantly sent down to clear them. The new style answers admirably. The wharf at Harris & Co.'s warehouse in the east basin was repaired and also that in front of Bate & Co.'s warehouse at the west basin. The east side of the Deep Cut from the head thereof to a distance of about 1,200 feet northwards was sheet piled with 10 x 10 inch x 24 foot pine, similar to the work done on the west side last year, this present work having been done by contract with Mr. J. R. Booth.

## HARTWELLS.

The upper cut stone still of the lower lock was taken down and rebuilt by our own masons, the stone having been supplied by contract last year. About 80 feet of cribwork was built on the north side of the by-wash below the apron to keep up the banks which were being washed away. A small addition was built to the storehouse in which to keep cement.

## Department of Railways and Canals.

### HOGSBACK.

The rock cut below the new bulkhead was cleaned out of stone, etc., washed into it by the spring freshet. A new ice breaker crib 20 feet high and 20 feet square was built, and timber purchased to make a boom between it and the one built last year. The large apron below the old bulkhead was repaired, it having been damaged by ice during the spring freshet, 25,000 B.M. of 3-inch pine plank being laid over the cribwork.

### BLACK RAPIDS.

A small breach in the lower side of the earth dam, caused by an eddy from the rush of water through one of the weirs during the freshet, was repaired with timber and stone. Both bulkheads were repaired and sheeted with half-round elm timbers on the up-stream side. A quantity of hewn timber was purchased to repair the long dam.

### LONG ISLAND.

A large quantity of clay was placed in front of the bulkhead to stop the leakage through the same. A new storehouse was built by contract with Mr. Robt. Clarke, of Manotick.

### WELLINGTON BRIDGE.

This bridge was taken over wholly from the county of Carleton by the Department. The piers were rebuilt from extreme low water mark, and a new steel superstructure of five spans (exclusive of the swing span) was built by contract with the Canadian Bridge and Iron Company, of Montreal. The approaches, etc., were built by local contractors.

### BURRITT'S RAPIDS.

Some gravel was placed on the dam, and sundry small repairs made round the station.

### NICHOLSON'S RAPIDS.

Sundry small repairs were made to the station.

### CLOWE'S QUARRY.

The lockmaster's house and kitchen were reshingled. Accumulations of gravel, etc., cleaned out by diver above the upper lock gates. Leaks in dam stopped by dredge.

### MERRICKVILLE.

The flooring of the steel bridge across the by-wash was replanked with 3-inch pine plank. A contract was entered into with Mr. M. Ryan, of Smith's Falls, for the construction of two retaining walls of coursed rubble masonry, with cut stone coping, laid in Portland cement. The total length of these walls which run along the western side of the road across the locks and by-wash is 324 feet. The work is at present about half completed. The leaks in the dam were stopped by the dredge, and the upper cut cleared of loose stone by diver.

### MAITLAND'S RAPIDS.

Two pairs of lock gates rebuilt. Two new swing beams. Six new chain blocks. The wooden bridge across the waste weir was rebuilt. Small store house built at side of lock. Two new buoys placed in channel.

## EDMOND'S RAPIDS.

The bulkhead was renewed, and sundry small repairs made to station.

## OLD SLY'S.

The road over the stone dam was raised and graded, and a new fence built along the edge of the dam. Sundry small repairs to station.

## SMITH'S FALLS, COMBINED.

New gratings were laid over the man holes of the sluices. The old swing bridge was repaired, and sundry small repairs made to the station.

## SMITH'S FALLS, DETACHED.

An embankment 720 feet long was built along the north side of the Lombardy road to protect it from being flooded by water during the freshets; the work having been done by contract with Mr. Francis Hourigan of Smith's Falls.

The cut stone piers for the new swing bridge across the cut at the foot of the lock were also built by contract with Mr. Hourigan. The contract for the steel swing has been awarded to the Trenton Bridge Co., but the bridge has not yet been erected. Two new mooring posts were placed in the bank.

## POONAMALIE.

One pair of lock gates were renewed. One hundred cubic yards of gravel were placed on the north embankment. Four new chain blocks.

## PERTH BRANCH.

One pair of large lock gates and one swing beam were renewed, having been wrecked by the steamer "Rideau Belle" striking them when entering the lower lock on 19th July. Two other gates were strengthened and repaired, having been strained by the rush of water when the vessel wrecked the upper gates. Lock-master's house was painted and re-shingled. Four new chain blocks.

## BOB'S LAKE DAM.

This dam which is situated at the outlet of Bob's Lake, about 22 miles above Perth, and which holds back the lake as a reservoir for the supply of the Tay Canal, was rebuilt by contract with Mr. John Korry of Bolingbroke.

## THE "NARROWS."

One hundred cubic yards of stone and a similar quantity of gravel were placed on the dam. The swing bridge across the lock was replanked with 3-inch pine plank.

## GREEN BAY BRIDGE.

This bridge which runs across the head of Green Bay, a branch of Wolfe Lake, having been damaged by high water caused by the latter lake having been held back by one of our reservoir dams at the outlet, was rebuilt; the council of the township of Bedford doing the work under my supervision, and the cost of the same being defrayed by the department out of a sum specially voted for the purpose by Parliament at its last session.

## Department of Railways and Canals.

### NEWBOROUGH.

Lockmaster's house was painted outside. The high level bridge was replanked, and sundry small repairs to station.

### CHAFFEY'S.

The lockmaster's house was rebuilt by contract with Mr. Graham, of Newborough. The swing bridge across the lock, and the bridge across the by-wash were replanked with 3-inch pine plank. The ferry scow which was built last year was handed over to the council of the township of South Crosby, and placed at the "Little Isthmus" to enable persons to cross from the mainland to the island. The chains with which this scow was worked having proved insufficient for the purpose of hauling it to and fro, a steel cable was purchased and placed on the scow in their place.

### DAVIS'S.

One pair of large lock gates renewed. Two new sluice frames and six new chain blocks. The lockmaster's house was roofed with galvanized iron.

### JONES'S FALLS.

A new galvanized iron roof was put on the lockmaster's house. Two new sluice frames. Repairs to chain blocks. The high stone dam was repaired. Morton dam strengthened and repaired.

### BRASS'S POINT BRIDGE.

The bridge was painted throughout by contract with Mr. F. W. Young of Seeley's Bay. One-quarter of an acre of land on the Pittsburgh side was expropriated from Mr. John Tierney for the purpose of making an approach to connect with the concession road, and thus stop the public from travelling across Mr. Tierney's property.

### BREWER'S UPPER MILLS.

One pair of new swing beams on lower gates, and sundry small repairs.

### BREWER'S LOWER MILLS.

Fifty cubic yards of gravel placed on lock walks and dam, and sundry small repairs.

### KINGSTON MILLS.

The long bridge on the Phillipsville road, across the by-wash, was renewed. Four new sluice frames. Repairs made to masonry of lower lock. One hundred yards of gravel placed on embankment. Collector's office repaired and painted inside.

### GENERAL.

The usual spring repairs consisting of pointing and grouting the lock walls and painting gates, were made by the lockmasters and lock labourers. The year's supply of oak timber, amounting to 4,933 cubic feet, was furnished by contract with Mr. H. Harris, of Ottawa. Nineteen pine swing beams each 40 feet x 17 x 17-inch were purchased from Mr. Platt, of Brighton, and Messrs. Sullivan and Champagne, of Ottawa. Two hundred barrels of "Jossou" Portland cement were purchased from Mr. De Sola, of Montreal, and about 40 barrels of Canadian Portland cement from C. B. Wright & Sons, of Hull, Que.

## DREDGE PLANT.

The dredge "Rideau," when fitting out this spring, in addition to the usual repairs to her hull and machinery, had new braces fitted to her mast and crane, her boiler tubes spread, and one steel dipper rebuilt.

The tug "Shanly" had her boiler raised, and a new smoke box put on to the furnace, as well as the usual small repairs, painting, &c.

The dredging plant was employed during the season in deepening the approach to the wharf at the port of Seeley's Bay, and also at the port of Westport. The dredge was also employed in excavating clay and loading the scows for the purpose of stopping leaks in the retaining dams at Merrickville, Nicholson's, and Clowes. The entire dredging plant, consisting of dredge, tug, four side pocket, and one flat scow, are in first-class working order.

I append hereto a table showing the highest and lowest water during each month of the year, at Ottawa and Kingston Mills lock stations.

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

ARTHUR T. PHILLIPS,  
*Acting Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer of Railways and Canals,  
Ottawa.

## RIDEAU CANAL.

TABLE showing monthly, the Highest and Lowest Water on the Lower Sills of the Locks at Ottawa and Kingston Mills, respectively, from 1st July, 1894, to 30th June, 1895.

OTTAWA.				KINGSTON MILLS.			
Highest.		Lowest.		Highest.		Lowest.	
	Ft. in.		Ft. in.		Ft. in.		Ft. in.
July 1.....	14 7	July 31.....	9 11	July 1 to 3...	9 1	July 26 to 31..	8 7
Aug. 1.....	9 9	Aug. 31.....	7 7	Aug. 1.....	8 7	Aug. 31 . . . .	7 6
Sept. 1.....	7 5	Sept. 12 to 16.	6 6	Sept. 27 to 30.	7 9	Sept. 1 to 8. . .	7 6
Oct. 23 to 27..	10 4	Oct. 1 to 3....	6 6	Oct. 1 to 10...	7 9	Oct. 21 to 31..	7 7
Nov. 11.....	11 9	Nov. 1 and 30.	10 0	Nov. 1.....	7 7	Nov. 22 to 30..	7 2
Dec. 21 to 25..	10 10	Dec. 1.....	10 0	Dec. 1 and 2..	7 2	Dec. 27 to 31..	6 7
Jan. 1.....	10 9	Jan. 31.....	8 9	Jan. 11 to 31..	6 8	Jan. 1 to 10...	6 7
Feb. 1.....	8 8	Feb. 26 to 28..	7 6	Feb. 1 to 12..	6 8	Feb. 13 to 28..	6 7
Mar. 25 to 31..	7 8	Mar. 4 to 11..	7 4	Mar. 31 . . . .	7 0	Mar. 1 to 6....	6 7
April 30 . . . .	18 5	April 1. . . . .	7 8	April 14 to 30.	7 0	April 1 to 12..	6 11
May 12.....	20 7	May 31 . . . . .	16 5	May 21 to 31..	7 2	May 1 to 14...	7 0
June 5 to 7....	17 0	June 30 . . . . .	13 5	June 1 to 5....	7 2	June 26 to 30..	6 9

A. T. PHILLIPS,  
*Acting Superintending Engineer.*

# Department of Railways and Canals.

## ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,  
CORNWALL, 1st July, 1895.

SIR,—I beg to submit the following report for the fiscal year ending 30th June, 1895, upon the maintenance of the canals in my charge.

The St. Lawrence District extends from the province line—Lake St. Francis to the harbour of Presqu'île on Lake Ontario—and includes the Cornwall, Williamsburg and Murray Canals and the intermediate river reaches.

### CORNWALL CANAL.

Navigation for the season of 1894 was closed on the 8th December.

The canal which was unwatered on the 16th March, 1895, to permit the works of construction to be proceeded with, and also the ordinary spring repairs, was opened for traffic on the 29th April, following.

Navigation is being maintained in a fairly satisfactory manner notwithstanding the inconveniences to which forwarders and vessel owners are occasionally subjected owing to the prosecution of the works of enlargement, or accidents to lock gates, necessitating the lowering of any of the levels.

On the 10th of July, 1894, the tug "Beaver" was fined \$10 for damaging valve rod of lock No. 18. This fine has been paid to the collector, Mr. Flanagan, 14th August, 1894.

A serious break occurred on the 19th June, 1895. The steamer "Ocean" on her trip west, struck the upper gates of lock No. 17, carrying them both out, the rush of water carried her back, causing her to strike the south lower gate of the same lock, which was also carried away, causing a stoppage of navigation for four days.

The damage resulting from this accident will probably amount to \$5,000.

As a rule, unwatering when necessary, has only been permitted during off hours on Sundays, viz., between 6 a.m. and 9 p.m.

The usual works of renewal and repair at the shops were carried on during the winter and the necessary repairs to structures and banks made whilst the canal remained unwatered.

Extensive repairs and renewals not provided for in the estimates are required at the following works, viz.:—

The ice breaker at the foot of the canal.

Bearings for pivots of all gates of new locks Nos. 15 and 17, this will necessitate the unwatering of the locks.

The collector's office and lock houses in connection with lower entrance require extensive repairs.

The superstructure of the pier at upper entrance, including ice breaker, should be rebuilt in stone, advantage being taken of the present low stage of river.

The question of building houses for lock and bridgetenders at all new structures is submitted for your consideration, as also that of waste weirs for the levels between locks Nos. 18 and 20.

There have been no superannuations during the past year.

The locks at the lower entrance were dismantled and otherwise prepared for winter, immediately after the closing of the canals on the 8th December, and the gate lifter, scows, &c., laid up in the Cornwall basin.

The highest water recorded during the year at lock No. 15, lower entrance, was 22 feet 4 inches and the lowest 9 feet  $\frac{1}{2}$  inch, at lock No. 21, the guard lock the highest was 10 feet 10 inches and the lowest 5 feet 7 inches.

The above levels are with reference to the old mitre sills.

The water in the St. Lawrence is abnormally low and there are no indications of the usual high stage which generally occurs in June or July.

During the winter gates were repaired and other necessary works attended to. Whilst canal was unwatered, from 16th March to 27th April, three new valves were put in the weir of lock No. 17, and the bottom also repaired, and all locks overhauled.

During the season of navigation the banks, culverts and ditches were kept in repair, also lock houses and watch houses.

New valves were put in four gates for locks Nos. 15 and 17.

Some vessels have been detained for a few hours in the long level between locks Nos. 20 and 21, at points where no dredging operations had been carried on, on account of the extraordinary lowness of water in the river which has prevailed during the past year.

#### WILLIAMSBURG CANALS.

The several divisions of these canals viz., Farran's Point, Rapide Plat, and the Point Iroquois, Junction and Galops, collectively styled the "Galops Canal," were closed for navigation on the 10th December, 1894, and reopened for the season of 1895 on the 23rd April.

The buoy service between Prescott and Dickinson's Landing was performed soon after the opening of navigation and twenty-one new buoys substituted for those found to be unfit for use and three old ones painted and properly replaced, and in addition, the channel at Rapide Plat for upward bound vessels has also been buoyed; this has been rendered necessary by the prevailing low water in the Rapide Plat canal which is 2 feet below normal level.

Navigation has been maintained in a satisfactory manner during the year, notwithstanding the prosecution of the extensive works of enlargement.

No accidents have occurred during the year and no unusual interruptions have occurred for traffic, notwithstanding the unusual lowness of the water in the river which rendered navigation very difficult through these canals.

The work of the repair staff has been general.

#### *Farran's Point Canal, Lock No. 22.*

The bridge across the flume has been rebuilt and largely renewed.

Several minor repairs were made to the lock and banks of this canal and a few snubbing posts put in.

New gates for lower recess are being built by contract.

#### *Rapide Plat Canal, Lock No. 23.*

A new pair of upper gates have been provided and put in place.

#### *Lock 24.*

Minor repairs were made to gates, gear and boom, the gates, bridges and weir were also painted.

#### *Galops Canal, Lock No. 25.*

A new road bridge across the flume was built to replace the old one which was unsafe.

Many repairs were made here to gates, bridges and wharf, the booms also in Point Iroquois section have been largely renewed.

#### *Lock No. 26.*

This lock has received many minor repairs during the year and frequently had to be cleaned out.



## Department of Railways and Canals.

Early in February last, an ice bridge formed at Farran's Point on both sides of the island and the river filled up with floating ice for about five miles, but no damage was done.

This bridge was the result of natural causes and broken up with this spring thaw.

The following fines have been imposed on the undermentioned vessels, for want of care and disregard to canal regulations, viz. :—

Steam barge, John E. Hall, 24th Sept., 1894.....	\$ 5 00
Propeller Melbourne, 30th May, 1895.. .. .	5 00
Barge Roberval, 26th June, 1895.....	40 00

These fines have all been paid to the collector at Cardinal, except the "Melbourne," which still remains uncollected.

The highest water on the sill of lock No. 23, the governing point on these canals, was 11 feet 5 inches, and the lowest 4 feet 3 inches.

The highest water on the sill of lock No. 27 was 10 feet 9 inches and the lowest 6 feet 9 inches.

### MURRAY CANAL.

Navigation was closed for the season on 30th November, 1894, and opened up again to allow a vessel to pass up on 22nd December, and opened in the spring on 19th April, 1895.

The number of vessels passed through the canal during the year was 673.

No accidents occurred and no fines were imposed during the year.

New mooring posts of cedar were put in where most required.

The swing bridges have been kept in thorough repair, and new floor planking put in where required.

Generally the banks have been kept in good condition, the ditches kept open, and the rip-rap protection repaired.

The bridge piers and abutments have been repointed where necessary.

Piper's semaphore signals have been placed on Trenton and Brighton road bridges and have given great satisfaction.

The towpath formed of sand east of the Smithfield road bridge, on the north side of the canal, has been protected by gravel for a distance of 1,400 feet.

The water at present is so low that at some points the riprap protection is entirely above water, and at these places a new trench is being formed and the toe of the original wall underpinned.

A great many complaints have been made by steamers and other vessels, on account of being obliged to stop at Bridge Pit to pay tolls, the space at this point being so narrow that they could not pass one another and were often delayed in consequence, and attention is, therefore, directed to the necessity of a wharf for this purpose, as well as for the convenience of shipping, as there is a large quantity of fruit shipped annually from the banks of the canal.

Attention is also directed to the subject of houses for the bridge tenders, wharf range-lights, etc., for which there remains an unexpended balance on capital account.

The lights at the entrance piers are not powerful enough and should be replaced by towers.

The highest water recorded during the year was 14 feet and the lowest 11 feet 6 inches.

A statement is appended hereto showing the highest and lowest water recorded during the past year at each of the canals on this district.

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

TOM S. RUBIDGE,  
*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer of Railways and Canals,  
Ottawa.

STATEMENT of the Highest and Lowest Water on the Canals in the St. Lawrence District for the Year ended 30th June, 1895.

Month.	Cornwall.						Williamsburg.						Murray.			
	Lock 15.		Lock 21.		Lock 22.		Lock 23.		Lock 24.		Lock 25.		Lock 27.		Murray Canal.	
	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.
1894.																
July.....	10 11	10 7	10 10	9 10	10 3	9 10	9 11	9 0	10 5	9 0	13 3	11 6	10 9	9 7	14 0	13 6
August.....	10 7	10 0	10 5	9 5	10 0	8 10	9 5	8 4	9 8	8 2	12 6	10 0	10 6	9 1	13 8	12 10
September.....	10 3	9 11	10 1	9 1	9 9	8 7	9 0	8 0	9 0	7 6	12 4	10 6	10 0	9 0	12 11	12 6
October.....	9 11	9 6½	9 8	8 10	9 2	8 3	8 8	7 3	8 8	7 5	11 6	10 0	9 9	8 6	12 8	12 3
November.....	10 0	9 2	9 10	8 6	9 3	7 10	8 8	7 0	8 7	6 9	11 6	9 1	10 2	7 11	12 5	12 0
December.....	11 0	9 ½	9 9	7 1	9 3	7 6	8 5	5 1	8 4	6 3	10 8	8 9	9 0	7 0	12 2	11 7
1895.																
January....	22 4	10 8	9 4	7 10	8 10	7 7	7 11	6 2	7 7	6 1	9 10	7 4	8 6	7 9	12 0	11 7
February..	15 8	13 3	8 6	6 3	8 10	6 5	10 0	6 3	6 8	3 4	8 8	6 4	7 11	6 9	11 9	11 6
March.....	14 8	13 4	8 6	6 4	8 10	6 4	11 5	6 5	7 0	4 7	9 3	5 0	8 0	6 9	11 9	11 6
April.....	13 7	9 9	9 4	8 4	8 11	7 10	8 6	7 0	8 9	6 9	11 7	8 9	9 9	8 1	12 5	11 9
May.....	9 10	9 6½	9 4	8 7	8 9	8 0	8 3	7 2	8 3	7 0	10 10	9 6	9 10	7 11	12 5	12 1
June.....	9 8	9 5	9 2	8 9	8 6	8 2	7 10	7 3	8 2	7 4	10 6	9 10	9 0	8 4	12 4	12 1

1558

# Department of Railways and Canals.

## ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,  
CORNWALL, 1st July, 1895.

SIR,—I beg to submit the following report for the fiscal year ended 30th June, 1895, upon the construction in connection with the enlargement of the canals in my charge.

### CORNWALL CANAL.

The canal has a total lockage of 48 feet and surmounts the Long Sault Rapids. It extends from the town of Cornwall westwards to the village of Dickinson's Landing, a distance of  $11\frac{1}{2}$  miles.

It was completed and first opened for traffic in the year 1843.

It is located on the north side of the St. Lawrence, on ground sloping rapidly towards the river, and at a considerable elevation (generally about 30 feet) above it.

By closely following the margin of the river, high embankments became necessary, which, when imperfectly constructed (as has been found to have been the case) have under certain conditions been subjected to frequent land slides, accompanied by subsidence, entailing, as in 1888, very serious consequences.

The works of enlargement now under construction consist in deepening, widening and straightening the original channel, in strengthening and protecting the embankments and in the construction of new and enlarged locks, supply weirs, bridges, &c., &c., also in addition to the above included in the original contract, the construction of dams across the north or Sheiks Island channel with the necessary regulating weir, &c., on the island designed to perfect the channel way and do away with the existing sinuous and imperfectly constructed embankments, west of the village of Milleroches.

As no change or improvement in the original alignment was contemplated or provided for in the scheme for enlargement, attention was directed to the fact that the class of vessels for which the enlarged canal is designed, would have great difficulty in navigating it, and that on certain curves on sections Nos. 6 and 7 west of Milleroches, it would be practically impossible for vessels of full canal size to pass each other when under headway.

The enlargement at the lower or eastern entrance (section No. 1) was commenced in 1876, and with the exception of some work on old lock No. 17, the weir and head race to the mills, was completed in 1882.

Section No. 10, upper entrance, which was commenced in 1884, has been finished during the past year.

In 1888 the remainder of the work required to complete the enlargement was placed under contract and except sections Nos. 6 and 7, is still in progress.

And in 1893 the contract for section No. 4 was extended to include the construction of the Sheiks Island dams which have been commenced and the contract for sections Nos. 6 and 7 and parts of sections Nos. 5 and 8 affected by their construction, cancelled.

STATEMENT of work under existing contracts and in progress.

Locality.	Section.	Contractors.	Date of Contract.
Cornwall.....	2	Wm. Davis & Sons.....	November 5th, 1888.
Lock No. 19.....	3		
Maple Grove.....	4		
Sheiks Island Dams...)	5		
Milleroches.....	6	The Gilbert Blasting and Dredging Co.....	November 2nd, 1888.
Moulinette.....	7		
Sand Bridge.....	8		
Long Sault.....	9		
Dickinson's Landing....	10	Jocks, Delorimier & Broder.....	April 7th, 1884.

Section No. 2 includes the completion of Section No. 1.  
 Section No. 4 includes the Sheiks Island dams.  
 Section No. 8 adjoins section No. 10.

The water was drawn off the canal by the 16th March, 1895, and so continued until the 29th April following, this enabled the contractors on sections Nos. 2, 3 and 4, to proceed with work which could not be carried on during navigation.

The stone delivered during the year was procured from the quarries at Cornwall, Maple Grove and Milleroches.

Masonry was continued throughout the season of 1894, until stopped by frost in November, 1894, and began again on 16th March, 1895, and has since been continued without interruption.

SUMMARY OF THE YEAR'S WORK.

Section No. 2.

The new lock No. 18 was brought into use last fall, and preparations are now being made to raise and repair the walls of the old lock.

While the water was out of the canal last spring the south retaining wall of the swing bridge was extended westwards in front of the Stormont Mill, and head gates were put in to control the water supply to the mill. The north wall was extended eastwards to the line of Pitt Street in the town of Cornwall, forming a wharf to replace the old structure which was removed.

The stone protection to the inside slopes of the banks, between the lock and the bridge was placed while the water was out of the canal. A large quantity of excavation has been done above the lock in straightening the canal, and only a small quantity remains to be removed to finish this work.

The outside or river slope of the banks is being protected by a heavy class of "pitched stone facing."

The stone arch of Wood's culvert has been removed where it was higher than the new bottom of the canal; a four foot cast iron pipe, which was placed inside the culvert and surrounded with concrete in 1891, taking the place of the old culvert.

A commencement has been made at the protection to banks, trimming, &c., and the section is beginning to assume a finished appearance.

Section No. 3.

The new lock, No. 19, was brought into use last fall. The masonry of the supply weir has been completed and the valves and service bridge placed in position. The entrances to the weir are being excavated, and it will shortly be brought into use.

## Department of Railways and Canals.

The excavation on the section has been principally confined to the entrances to the weir, as the rest of the section is almost completed.

A small quantity of "stone protection to the inside slopes" of the banks has been placed and the trimming of the banks has been commenced.

### *Section No. 4.*

The new lock, No. 20, was brought into use last fall.

While the water was out of the canal in the spring of this year, the glance pier at the foot of the lock was built, and the dry wall above the weir was completed.

The upper ends of the old lock walls were rebuilt, and a temporary dam placed across the head to allow of the remainder of the walls being rebuilt and raised while the water was in the canal, and this is now being done.

Three of the old courses of masonry are being removed and are to be replaced by four new ones, thus raising the walls two feet above their original height and bringing them on a level with the walls of the new lock, which were raised last summer.

Very little excavation has been done on the section, as nearly all that now remains to complete is the blue clay above the lock, which is being reserved for puddle.

The new bank to the north of Robertson's culvert has been completed and the north end of the old culvert will soon be removed, thus giving a much wider and straighter channel for navigation than formerly.

### *Section No. 5.*

Two dredges have been working on this section all this spring and summer, and are making fair progress towards completion.

### *Section No. 8.*

The stone protection to the inside slopes of the banks has been nearly all placed and the south bank has been built up and trimmed. Fair progress has been made with the excavation which is now nearly completed.

### *Section No. 10.*

The work on this contract has been completed during the year, and the final estimate is being prepared.

### *Sheiks Island Dams.*

Splendid progress has been made on both the dams during the year, and they stand now within a very short time of completion.

The rip-rap facing on the inner slope of the lower dam has been completed and all that now remains to be done is to face the outer slope in a similar manner and form the roadway across the top of the dam.

The upper dam is in almost the same condition, with the exception that the rip-rap facing is not quite so far advanced.

The roadway embankment on the island at the lower dam has been completed.

The excavation for the regulating weir is progressing rapidly and it is expected that the foundation of the weir will be laid this season.

Attention is again directed to the necessity which exists for the widening and straightening of the upper entrance to this canal. Also to the propriety of extending and improving the direction of the north pier at the lower entrance. And the proposed raising of the level of the coping of the new guard lock from 18 inches to two feet, to provide protection to the works during high water stages of the river.

An appropriation has been made for repairing locks 15, 16 and 17 of the old lower entrance, the work on which has been commenced by the construction of the necessary cofferdams.

## WILLIAMSBURG CANALS.

## FARRAN'S POINT.

This canal is about three-quarters of a mile in length and has a lockage of  $3\frac{1}{2}$  feet. It overcomes a short rapid above the village of Farran's Point situated about 5 miles west of Dickinson's Landing, the head of Cornwall Canal. There are no works under the head of construction to report. A location survey has however been made for the enlargement of this work, including a general survey and examination of the channel leading from the proposed new upper entrance at Empy's Point (Point Avoyon) following the north shore westward through the passage Little Cat Island and the village of Aultsville on the mainland, and from the present lower entrance the survey was extended east to Baker's Point below the Big Eddy and connecting with the deep straight channel leading to the Cornwall Canal.

Plans have been prepared showing the proposed manner of enlarging the canal and of extending both the entrances to a safe distance beyond the influence of the eddy and current.

## RAPIDE PLAT.

The lockage on this canal is  $11\frac{1}{2}$  feet, it surmounts the rapids of Rapide Plat and extends from the village of Morrisburg west to Flagg's Bay, about  $3\frac{1}{4}$  miles.

The works now under contract and in progress are as follows, viz.:

Location.	Section.	Contractors.	Date of Contract.
Morrisburg.....	1	Poupore & Fraser .....	January 26th, 1891.
Mariatown.....	2	The Weddell Dredging Co.....	January 12th, 1891.
New Road.....	3	Poupore & Fraser.....	January 26th, 1891.
Flagg's Bay.....			

The change in alignment on section No. 4 is included in section No. 3.

The enlargement was commenced in 1884 on section No. 4, the upper or western entrance, which was completed and brought into use in 1888.

The work of enlargement consists in the deepening and widening of the old channel and in constructing new locks and supply weirs, and the necessary retaining walls, protection cribwork, &c.

*Section No. 1.*

This section extends west along the river front, front of the village of Morrisburg, and includes the new locks.

A change from the general alignment of the lower end of the section has been made by placing the centre piece of the new lock parallel to that of the old lock No. 23, thereby improving the direction of the river entrance and enabling upward bound vessels to avoid the strong current.

Dredging operations were stopped on the 24th December, 1894; resumed again on the 15th April, 1895, and are progressing favourably. The material excavated has been utilized in widening and strengthening the towing path and in forming an embankment upon and outside the protection cribwork.

## Department of Railways and Canals.

The excavation of the lockpit by means of the steam excavator was stopped on 4th December, 1894. The greatest part of this excavation being done, the excavator was removed from the works. On the 11th March, 1895, with the help of a steam derrick, the cleaning up of the lockpit was resumed and is now nearing completion.

On the 11th August, 1894, during the progress of the excavation owing to quicksand beds and fissures underlying the bed of the river, a dangerous leak was developed which filled the pit in about four hours.

By the aid of divers, two puddle dams were made in the south protection cribwork opposite both ends of the lockpit.

These were completed on the 13th September, 1894. The unwatering of the pit was immediately proceeded with and the excavation prosecuted without further interruption to the end of the season. During the progress of this work two large pumps have ultimately been at work and are still in operation owing to a small leak coming from the river and following the face of the cribwork and which cannot be traced. The concrete and timber foundation and the mitre sill platform of the new lock which was, commenced on the 18th April, 1895, is now in progress, and nearing completion.

The masonry for the new lock was commenced on the 7th May, 1895, and is now progressing favourably.

The stone for lock masonry is being cut and prepared partly at the works and partly at Milleroches quarry, Cornwall Canal, and that for the retaining walls, &c., at the Wolfe Island and Belleville quarries.

The construction of the cribwork for the seat of the north retaining wall of the canal was resumed on the 24th May, 1895, and completed on the 23th June, 1895.

The masonry for the above wall was stopped on the 16th November, 1894, resumed on 27th May, 1895, and is now nearing completion.

### *Section No. 2.*

This district begins at the west end of the village of Morrisburg and extends westward to near Mariatown.

The works on this section consist chiefly of excavation, *i.e.*, dredging and dry work.

The dredging operations were stopped on the 24th December, 1894, and resumed on the 15th April last. Two dredges have been engaged in excavating.

The material dredged has been utilized in widening and strengthening the towing paths and embankments. To protect the outside river slope of the towing path, a stone toe was formed from the west end of Statas Bay to the west or upper end of the section.

The stone protection of inside slope of north bank was commenced on the 14th October, 1894, and completed on the 30th November, 1894.

The levelling up and repairing of the slopes of the towing path is now being proceeded with.

The entire work on this section will be completed in a few weeks.

### *Section No. 3.*

This section commences a short distance above Mariatown and extends west of the vicinity of the guard lock (No. 24) and includes the widening and deepening of the east end of the section No. 4, and also the spoil ground and other works connected with Flag's Bay.

The dredging operations were stopped on 19th December, 1894, resumed again on 8th April, 1895, and are now being carried on.

For the formation of the north slope above water, a force of labourers, teams, ploughs and scrapers have been engaged since the 17th June last.

The dredged material is being utilized in widening and strengthening the towing path and embankments.

At Flagg's Bay, owing to the dumping grounds having obstructed the old bridge and a portion of the old public road, a new bridge and approaches were constructed. This work was commenced on the 18th July, 1894, and completed on the 30th October, 1894.

*Section No. 4.*

The work on section No. 4 was finished in 1888 and at once brought into use. It comprises the new guard lock (No. 24) and supply weir, and the formation of the upper entrance to the canal, and also of the prism for a short distance below the lock.

Since the completion of the contract it has been found necessary to change the alignment at the lower end of this section.

The work in connection with which is included in section No. 3.

GALOPS CANAL.

*Point Iroquois Division.*

This canal as originally constructed was about 3 miles in length, with a lockage of 5 feet 7 inches at lock No. 25, in the village of Iroquois, from whence it extends westwards to Presqu'Île, overcoming the Point Iroquois Rapid, and other stretches of swift water, as at Sparrow Hawk's Point, &c.

About ten years after the completion of these works, some important changes were made, viz., the lower mitre sill of lock No. 25 was lowered 3 feet 2 inches, and means afforded of regulating the depth of water on the upper sill, and consequently in the canal, by connecting it by means of an embankment in the river with the Galops Canal at Point Cardinal (Lock No. 26).

There are no works of construction on this division on which to report.

*The Junction Division.*

The Junction Division commences at Presqu'Île and extends upstream to lock No. 26, at the village of Cardinal.

It consists chiefly of an embankment about  $2\frac{1}{2}$  miles in length, formed in the river and connects the Galops and Point Iroquois divisions, and thereby as stated above, raises the water and affords a means of controlling the level in the Iroquois reach.

The fall in the river between the above mentioned canals is one foot seven and a half inches.

Work on the Junction was completed in 1856.

There are no works of construction on this division whereon to report.

*Galops Division.*

This, the original Galops Canal, had a lockage of 6 feet 8 inches, and extended upwards from the village of Cardinal, about 2 miles to the head of the Galops Rapid, which it was designed to overcome, and which commences about 7 miles east of the town of Prescott.

Some years after the completion of the canal, the pier head was extended up stream by cribwork, and the lockage or fall increased  $11\frac{1}{2}$  inches.

The guard lock (No. 27) at the upper entrance, is the most westerly lock on the St. Lawrence navigation.



# Department of Railways and Canals.

## *Upper Entrance.*

The work now under contract and in progress, and for which Messrs. Murray & Cleveland are the contractors, was commenced in 1889. Their contract was entered into 14th November, 1888, to be completed 15th June, 1891.

It embraces the construction of a lift lock, and of a guard lock, and supply weir, also the deepening, widening and straightening of the channel from the upper entrance to Round Bay, a distance of about one mile, and the removal of the old guard lock, &c.

Dredging and drilling and blasting operations have been carried on uninterruptedly during the working seasons.

All dredged materials, except rock required on the work, and earth suitable for embankment, have been conveyed in dump scows to the dumping ground between Pier and Squaw Islands, and wasted.

On the 28th September, 1894, the area occupied by the new locks was flooded from the canal and the lock gates were floated to their places through an opening dredged in the old canal bank; all five pairs of gates were hung and those in the lift lock closed, the dam to the river was cut and water below the lift lock lowered to about the level of the river.

The old canal banks having been dredged out, navigation was turned through the new locks and the dams inclosing site for weir formed across the old canal.

Early in April, 1895, the weir pit was pumped out, the coffer dams proving perfectly water tight.

The foundation of the weir has been put in and about two-thirds of the masonry completed.

A survey has been made of the lower portion of this canal for the purpose of deciding upon the nature of the enlargement and a location survey of the north channel leading westwards from the upper entrance has been completed.

Preliminary surveys have been made or are in progress, of the Galops, Junction and Iroquois divisions, and of the adjacent coast line and shoals, for the purpose of deciding upon the character and extent of the proposed enlargement.

A survey of the Rapide Plat shoals is in progress, and a further survey of the south or Flat Rock channel above the Galops will be made this season.

It is proposed to ask for tenders for the reconstruction of the north pier at the lower entrance to lock No. 22, and also of the north and south piers at lower entrance to lock No. 26.

## *St. Lawrence River and Canals.*

The tug "Alert," a vessel of 34 tons, was purchased in October, 1894, for survey and inspection purposes, and was subsequently fitted with a steam winch and cable for anchoring in the rapids.

I have the honour to be, sir,

Your obedient servant,

TOM S. RUBIDGE,

*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer of Canals,  
Ottawa.

## WELLAND CANAL.

ST. CATHARINES, ONT., 10th September, 1895.

SIR,—I beg to submit my annual report upon the Welland Canal and its branches for the fiscal year ended 30th June, 1895.

With the exception of the mishap at lock No. 22, on the morning of 9th May, 1895, when the steamer "Jack" of Garden Island carried away the four gates of that lock and one of lock 21, no interruptions of traffic worthy of mention occurred; on the occasion stated, traffic was delayed for four and a half days.

The steamer came into the lock too fast, trusting to the engine to stop her. The engineer failed to obey the signal from the bridge, and the gates were carried away.

The mishap was due entirely to a departure from canal rules and regulations, and unless they are strictly followed, such mishaps and detentions are sure to continue.

A bond for \$5,000 was taken from the owners and other responsible parties, and the vessel proceeded on the 13th May.

The repairs were not completed in full at date of 30th June last, and the amount does not therefore appear in the accompanying statement of damages to canal property.

The following minor repairs and renewals were carried out during the year:—

## DIVISION No. 1.

*Port Dalhousie to Guard Lock.*

*Repair Shops, Port Dalhousie.*—Brought spare guard lock gates from cradles and thoroughly overhauled them, put in elm dowels, new valves, &c.; hauled out the four broken gates of lock No. 1 old canal, carried out by the "City of Windsor," and rebuilt them; repaired twenty-four wheel barrows, and twenty ice chisels, made 300 stoppers. Hauled out and rebuilt the two gates from guard lock. Built new gate pontoon and painted it. Hauled out and dismantled the old pontoon (No. 1) and used iron work, as far as available, for the new one. Repaired pontoon No. 2 and steam pile driver, putting in covering boards, and rakes, caulked and pitched decks. Hauled out and blocked up the scow "Sir Charles" for repairs.

Built blacksmith shop 15 x 30 feet, and put in necessary working equipment.

Replaced the five lock gates carried out of locks 21 and 22 by the steamer "Jack" with spares from lock 1 pond, and hauled out and rebuilt the broken gates, and laid them away on the gate cradles.

*Port Dalhousie Harbour.*

Repaired the piers from time to time, where not under contract for renewal, renewed the culvert under roadway on east side of the harbour; renewed the walls and platform of ferry landing, repaired the winter float bridge after storms, and drove pipes to keep it in position; repaired the road from lock 1 to station, and opened ditch alongside, reset snubbing posts where necessary.

*Lock 1 and Bridge 1 and Level.*—Built temporary bridge above lock No. 1 weir and removed and rebuilt the road bridge at that point, then removed temporary bridge; put new segmental planks at each end of No. 1 bridge. Bolted new walings to lock walls at upper end of lock, put 6 cords of stone on gates at cradles, put new swinging gear in No. 1 bridge, took out old and put in new snubbing posts, made new lock float, used 2 brass matrices, 3 brass washers, 2 cables, 2 water wheels and cases, new slide valve, 2 new crown wheels.

*Lock No. 2 and Level.*—Took out old, and put in 2 new posts for safety cables, opened out 550 lineal yards of ditch on both sides of canal, made 1 lock float, used 1

## Department of Railways and Canals.

slide valve, 1 water wheel, 1 brass washer, 2 clutch studs, 1 pinion, 1 brass matrix, 1 cable.

*Lock No. 3 and Level, Bridge No. 2.*—Made up the banks in rear of lock, overhauled the gearing and rods of swing bridge, and put all in proper adjustment, dug out old and put in new snubbing posts and braces, used 3 brass matrices, 2 brass washers, 2 long cables, 1 water wheel and case, 1 slide valve, 1 intermediate gear, put new top on lock float.

*Lock No. 4 and Level.*—Took out old and put in new snubbing posts and braces, and straightened others, put in new guard timbers to water wheels and shafts, used 1 intermediate gear, 1 short cable, 2 phosphor bronze pinions, 1 brass washer, 1 water wheel, put new top on lock float.

*Lock No. 5 and Level.*—Made up the banks in rear of lock, used 1 new ratchet, 1 stud, 1 valve crank, 4 new brass matrices, 4 brass washers, 1 cable, 1 intermediate gear, 1 slide valve, 2 phosphor bronze pinions, made 1 new rack for poles, ladders, &c., took out old and put in new large snub, and some smaller ones, and put new top on lock float.

*Bridge No. 3 (Lake St.)*—Took out old abutment fender piles and put in new ones and new walings, put new wales and braces on centre pier cluster piles, put new shackles and chains on floating fenders when necessary, replaced old snubbing posts with new ones.

*Bridge No. 4 (Grand Trunk Railway)*—Renewed waling where broken, put up 1 new stop block and locking catches, 1 new opening spring, 2 track chairs, 6 new snubbing posts to replace old ones.

*Lock No. 6 and Level and Bridge No. 5 (Geneva Street)*—Repaired the road leading to lock and bridge, and made up the banks where necessary, using 3 cords of stone facing; took up and reset 100 lineal feet of coping on east upper entrance, bolted new wales on masonry under water, put new guard timbers on the 4 gates, put up rack for holding poles, ladders, &c., put new top on lock float, used 1 new stud, 1 valve screw, 1 valve sleeve, 2 brass matrices, 4 brass washers, 2 cables, 1 intermediate gear. Built new oil house.

*Lock No. 7 and Level.*—Put new water wheel guards on gates, renewed gate bridge and wales, and repaired another, put up rack for poles, ladder, &c., took out old and put in new snubbing posts, used 35 cords of stone in repairing stone facing of banks, opened up ditches on each side of level used, 1 slide valve, 1 ratchet dog, 1 lever stand, 1 set cone rollers, 1 cannon, 2 water wheels, 2 cables, 1 phosphor bronze pinion, put new top on lock float.

*Bridge No. 6 (Niagara Street)*—Renewed the cluster piles, wales and braces, at north end of centre pier, put new chains and shackles on floats where required, screwed up truss rods, and adjusted cams, &c.

*Lock No. 8 and Level.*—Put new wheel guards and protection timbers on the 4 gates, replaced 5 snubbing posts, put new top on lock float, used brass matrix, 2 brass washers, 1 lever stand, 3 cables, 1 new shifting stud, 1 spur wheel gear, 1 set cone rollers and frame, 2 water wheels and cases.

*Lock No. 9 and Level*—Put on one new foot bridge, made up bank and used 10 cords of stone in facing same, opened up ditches on north side of level, put up rack for holding poles and ladders, replaced decaying snubbing posts, used 1 slide rod, 1 set of gearing, 3 brass matrices, 2 phosphor bronze pinions, 1 water wheel and step, 1 set intermediate gear, 1 cable, 1 water wheel.

*Bridge No. 7 (Queenston Road)*—Put swinging gear in order, made hatch in floor, put in 6 new eyebolts, and kept floats in order.

*Lock No. 10 and Level.*—Made up canal banks, and used 6 cords of stone in facing same, cleaned out mouth of 10-mile culvert, opened ditches at foot of slopes, replaced old snubbing posts, put up rack for poles and ladders, &c., used 1 slide valve, 2 water wheels, 1 cable, 1 phosphor bronze pinion, 1 gear shaft, 1 crown wheel, 2 matrices, 1 clutch shifting stud, 1 new valve screw.

*Bridge No. 8 (Homer Road).*—Renewed the cluster piles, wales and braces at each end of the centre pier, and repaired the floating fenders, eyebolts, and chains.

*Lock No. 11 and Level.*—Made up canal bank where required, and repaired the stone facing, put up rack for poles, ladders, &c., put on new binder, and wheel guards, 1 large wale on head gates, used 1 intermediate gear, 1 water wheel, 1 clutch frame stud, 1 phosphor bronze pinion, 2 cables, 2 brass matrices, 1 brass washer.

*Lock No. 12 and Level.*—Made up banks and repaired stone facing, renewed 5 snubbing posts, put up rack for poles, ladders, &c., put new top on lock float, used 3 phosphor bronze pinions, 1 large wale on gate, 2 cables, 2 brass matrices, 4 brass washers, 3 water wheels, 1 clutch shifting stud.

*Lock No. 13 and Level, Bridge No. 9 (St. David's Road).*—Made up the banks where required and repaired the stone facing, replaced 7 old snubbing posts with new ones, and straightened 3 others, put up rack for poles and ladders, &c., and put new top on lock float, used 2 phosphor bronze pinions, 4 new studs for clutch shifter, 1 brass matrix, 2 brass washers, 1 water wheel, 1 intermediate gear, 5 cables, 1 set of gears, 1 gear shaft.

*Lock No. 14 and Level.*—Made up the reservoir bank where a slide had occurred, also some smaller soakage slides, replaced 8 old snubbing posts with new ones, put up rack for poles, ladders, &c., and put new top on lock float, used 1 mast, 1 phosphor bronze pinion, 4 new water wheels, 5 cables, 1 brass matrix, 1 brass washer, 1 clutch stud, 2 slide valves.

*Lock No. 15 and Level.*—Anchored watch house with bolts to stone foundation, replaced 11 old snubbing posts with new ones, renewed one foot bridge, put new top on lock float, made up banks and used 5 cords of stone facing same, used 3 slide valves, 3 cables, 1 intermediate gear, 1 new shutting chain, 1 lever stand, 1 phosphor bronze pinion.

*Lock No. 16 and Level.*—Filled up settlements in canal and reservoir banks, anchored watch houses to foundations, took out and renewed 7 snubbing posts, put new top on lock float, used 12 cords of stone in facing banks, put a new set of studs under gate bridges, used 3 brass matrices, 1 brass washer, 1 cable, 2 new clutch studs, 3 intermediate gears.

*Lock No. 17 and Level.*—Repaired broken waling at head of lock, put new top on lock float, anchored watch houses to masonry, put new protection timbers to water wheels and shafts, used 3 new clutch studs, 1 brass matrix, 1 brass washer, 7 water wheels, 4 cables, 1 mast, 2 slide valves, 1 phosphor bronze pinion.

*Lock No. 18 and Level.*—Anchored watch houses to foundations, repaired the stone facing of banks, put new top on lock float, used 1 new gate step, 3 water wheels, 1 water wheel care, 1 crown wheel, 2 brass washers, 1 cable, 1 phosphor bronze pinion.

*Lock No. 19 and Level.*—Made up slide in reservoir bank, anchored watch houses to foundation, put new top on lock float, straightened 3 snubbing posts, used 1 water wheel, 2 brass washers, 1 clutch shifter, 2 cables.

*Lock No. 20 and Level.*—Anchored the watch houses to foundations with bolts. Repaired and made good a slide in the reservoir bank, and faced its banks with stone where washed out. Took out 7 old snubbing posts and braces and put in new ones, and straightened up 2 other posts. Put new cover on lock float. Repaired the water wheel and shaft guards and protections. Used 1 water wheel, 2 brass matrices and washers, 1 new gate step, 1 cable.

*Lock No. 21 and Level.*—Filled up and well rammed large cracks in banks and faced up slopes of same where needed with stone. Took out 5 old snubbing posts and braces and put in new ones, and straightened 4 others. Put new cover on lock float. Used 2 phosphor bronze pinions, 1 slide valve and frame, 2 gate steps, 6 water wheels, 1 clutch stud, 2 cables, 1 brass matrix.

## Department of Railways and Canals.

*Lock No. 22 and Level.*—Dug down to bottom of leak through bank and filled up with puddle. Put new covering on lock float. Dug 350 feet of ditch. Put on protection pieces to water wheels and shafts. Used 1 clutch shifting stud, 2 ratchet arches, 2 gate steps, 4 cables, 2 brass matrices, 4 brass washers, 1 hub wheel, 2 water wheels, 4 new lock gates and machinery. Took out 5 old snubbing posts and braces and put in new ones and straightened up 5 others.

*Lock No. 23 and Level.*—Took up 1 old snubbing post and braces and put 1 large new one in place and straightened up 4 others. Put new top on lock float. Put down new platform in front of watch house. Put new binder on foot gate. Put new water wheel guards, also shaft protectors. Used 1 water wheel, 4 cables, 1 intermediate gear, 2 brass washers, 1 phosphor bronze pinion, 1 adjusting screw, 1 clutch shift.

*Lock No. 24 and Level and Bridge.*—Took up 5 old snubbing posts and braces and put down new ones and straightened up others. Put new cover on lock float. Put on new bumper wale. Repaired bridge cams. Used 5 cables, 1 hub, 1 brass matrix and 2 washers, 2 eyebolts, 2 shackles, 1 phosphor bronze pinion, 1 water wheel, 1 intermediate gear, 1 slide valve, 1 set of valve gearing.

*Grand Trunk Railway Bridge, No. 11.*—Repaired the floats from time to time and used 6 new shackle and eyebolts.

*Lock No. 25 and Level, Bridge and Weir.*—Built new bridge over the weir. Stripped floor of swing bridge and put on new planks and stringers, jacked up swing-bridge and moved it into proper position, shifted pivot. Put new covering on lock float. Took up 8 old snubbing posts and braces and put down new. Used 2 cables, 1 set of cone rollers, 1 corbel.

*Guard Lock.*—Old lock gates taken out and new ones substituted, overhauled and repaired and painted semaphore. Put new top on lock float, 1 new cable put on. Took up old platform of lock house and laid down new one.

### *Generally.*

All the machinery and gearing in connection with the lock gates and weirs. Swing bridges and throughout have received all needed repairs and renewals, and have been kept in proper adjustment, numerous obstructions have been removed by the diver from the locks and under the gates from time to time.

The rods and all other parts of the swing bridge have been constantly overhauled and kept in repair and adjustment.

The binders, walings, protection pieces, foot boards, extension steps, &c., to all the locks throughout have been renewed and kept in repair from time to time.

The canal banks throughout have been levelled up and kept in good order.

All thistles and weeds on government property have been cut and burnt.

### NO. 2 DIVISION.

#### *Guard Lock to Welland Bridge.*

*Bridge No. 13.*—Pulled broken pile and drove one 35-foot pile at centre pier and replaced and secured floats. Put in new latch cable and repaired the bridge. Reset and chained the old floats.

*Bridge No. 14.*—Nil.

*Bridge No. 15.*—Repaired and reinstated fender work damaged by steamers "Egyptian" and "Argonaut."

*Bridge No. 16.*—Repaired the bridge floor. Repaired the pile and wale (fender) work damaged by steamer "Bannockburn." Repaired the float and stop frame.

*Bridge No. 17.*—Stripped off the old floor and put in new stringers and new 3-inch oak floor also new 3-inch oak floor in the approaches. Removed the temporary bridge, and piled material on bank, subsequently loaded same on scow with a lot of other old timber and took to gate yard lock 21, levelled approaches made to temporary bridge and repaired towpath.

Removed the old decayed floor and timbers from the old towpath across the old aqueduct at Welland, and put on new coping timbers and filled in 6 inches of macadam between them. Took down the unused bridge at Bell's Creek, Port Robinson, and took part of it to Welland for a temporary bridge. Took scow from gate yard with temporary truss bridge on, to Welland and erected it and closed up the permanent swing to renew the floor. At close of canal for winter, blocked up all bridges and put winter floats in position across canal at Welland and Port Robinson, searched bottom of canal and removed obstructions. Opened ditches through deep cut and various other parts of canal. Repaired washouts in the towpath in deep cut. Took new small boat to aqueduct at Welland and brought back old one for repairs. Took out old and put in 3 new 10-foot snubbing posts and braces near bridge No. 13. Built stone drain across highway south of Port Robinson and covered it with flags. Jacked up the highway swing bridge across the Port Robinson lock and keyed up the pivot.

Cleaned out ditch alongside stone road. Repaired the towpath bridge over creek north of bridge No. 16 and filled in behind wing walls. Scraped tow and heel paths between bridges 13 and 16 and filled in ruts several times. Filled in a washout and repaired slope wall east side of bridge No. 16. Collected and removed on scow and log rafts all old timbers and sunken logs, &c., between Air-line ferry and Allanburgh and took them to gate yard lock 21. Removed stone from bottom of canal by diver and blasting, screwed up all ironwork and repaired floor of swing bridge over Port Robinson lock. Repaired and caulked Port Robinson ferry boat. Cleaned out and deepened back ditch alongside Silverthorne's farm west of bridge No. 16, also back ditch north of same. Filled up sink hole at the old Bugar road. Cleaned out back ditch north of Welland aqueduct. Repaired the towpath. Repaired the long float bridge and the walks and approaches to it at Port Robinson ferry. Set posts and hung 2 gates across towpath north of bridge 16. Took soundings in Chippawa Creek foot of lift lock near Welland aqueduct. Repaired slope of bank and filled in washouts east and west sides of Bugar road. Repaired the culvert and reset the mile and sign post at bridge 16 and repaired a sinking in towpath at Bell's Creek culvert. Cleaned out stone culvert and ditch and repaired the tile culvert near bridge No. 16 east and west sides. Broke up and loaded a pile of stone on scow at Bugar road and used them to fill in washout near Chippawa Creek lock. Loaded scow with stones near Welland aqueduct and repaired riprapping and sinking in the deep cut. Repaired the sodding on slopes near Port Robinson ferry. Made new ditch south end of deep cut and repaired the sodding west side. Put in 1 new culvert and repaired 2 others on east side north of bridge 16, searched the bottom of Welland aqueduct and 100 yards on each side of it, and picked up and removed sunken timber, &c.

### No. 3 DIVISION.

#### *Welland Bridge to Port Colborne.*

*Bridge No. 18.*—Bridge fenders renewed by M. C.R.R. Co.

*Bridge No. 19.*—Repaired the swinging gear, locks and cams and the flooring from time to time.

*Bridge No. 20.*—Repairs done by G.T.R. Co.

*Air-line Ferry.*—Drove new piles for protection work and fitted up and placed in position a ferry scow and float and renewed the approaches at each end, lowered the approaches to ferry. Hand dredged and lowered canal slope. Repaired and adjusted operating gear from time to time. Built and placed in position new lap aprons for winter use.

## Department of Railways and Canals.

*Bridge No. 21.*—Took off decayed timbers from centre pier fender, and braces at west abutment fender crib and replaced with new timbers and filled up spaces between crib-timbers with stone. Removed the old protection floats and substituted large oak walings bolted to pier instead. Repaired the damage done by steamer "Fairbanks." Repaired the bridge floor from time to time. Built stone foundation walls (dry) under watch house and graded up to and around it and filled in the old abandoned site.

*Bridge No. 22.*—Repairs to this are done by G.T.R. Co.

*Bridge No. 23.*—Repaired the bridge flooring from time to time.

*Port Colborne Harbour.*—Repaired the abutments and west pier at entrance, also the planking of beacon and cribs and wherever required along the west pier. Repaired the ferry landing.

Loaded iron on the scow at Port Colborne and took to gate yard lock 21. Cleaned out and deepened from time to time as found necessary the back ditches and towpath and heelpath ditches each side of the canal between Welland Bridge and Lake Erie, also along the Welland raceway.

Searched the bottom of Port Colborne harbour and various parts of the canal to Welland at different times and picked up and removed sunken logs, &c. Rebuilt stone wall along Neff's ditch, Humberstone. Put in repair and kept in place at various times and places the timber floats along rock cutting, Humberstone to Port Colborne. Took out old clay dam from the Welland race south of the head gates, at Junction. Quarried stone and hauled to Humberstone bridge cribs and approaches. Repaired the Port Colborne lock gate and ferry boat. Loaded scow at Air-line ferry, Welland bridge, and along canal bank with old timber for gate yard. Deepened channel of Welland race with hand dredge. Removed stones and gravel several times with diver's help from Port Colborne lock, and repaired valves on the gates. Dug out numerous decayed and unsafe snubbing posts and braces between Welland and Lake Erie, and substituted new ones. Excavated for and put in plank box culvert at slides, in slopes near Air-line bridge and across tow and heel paths at various other places. Puddled up various cracks frequently in slides, levelled up and repaired tow and heelpaths throughout where required, and faced parts of canal slopes with stone. Cleaned out and deepened the outlet ditch into Lake Erie east side Port Colborne harbour several times after storms. Cleared out old bridge and stumps from Brancis off-take ditch. Cut ice from around steamer "Grace" at Port Colborne. Scraped towpath from Humberstone to Welland and filled in ruts. Repaired bridge across Welland raceway. Made sweep for sounding harbour and canal. Cut all thistles and weeds each side of canal and Welland raceway and other Government property.

### No. 4 DIVISION.

#### *Dunnville and Feeder Division.*

The supply of water has been sufficient to keep all mills going satisfactorily throughout, except in the Welland raceway.

The mitre sills of the locks at Dunnville, Port Maitland and Junction have been cleaned out and the lock gates repaired and all the gearing kept in order.

All sunken logs and other obstructions have been removed out of Feeder channel, and brush and rubbish carried down the ditches and drains into the culverts under the canal, has been removed, piled up and burnt.

The large quantity of driftwood and rubbish that came down the Grand River with the spring freshets and lodged in front of the waste weirs and dam at Dunnville was drawn out and dumped in creek below.

All worn out and broken planks have been taken out from the various bridge floors throughout and replaced with new.

All swing bridges were raised on their pivots and adjusted and tracks levelled up.

Approaches to all bridges have been properly filled in and raised with suitable materials where necessary.

The boom protection timbers in front of Dunnville dam and cluster piles were partly broken and carried down by ice in the spring, the booms were replaced, new oak piles driven and booms thoroughly secured with chains.

A new 10-inch sewer pipe was laid in to carry off water that found its way into canal office cellar at Dunnville.

Extensive renewals and repairs were made to the apron and piers of the long bridge at Dunnville, 300 feet in length of the apron was renewed, the decayed timbers of the piers were replaced with new and the piers were sheeted over with 2-inch oak plank to protect them from ice damage, and new large oak timbers were secured in front of each pier. 5 new flood gates were built and placed in position in place of the old ones that were carried away by the heavy logs and driftwood. All the bridge piers were filled up with stone, the flooring of the long bridge put in good order, and part of the bridge coping and framing replaced where carried away by flood.

The bridge over the back ditch at the Sourwine road was renewed and that at the Town-line road repaired.

Considerable filling of holes and ruts along the canal banks was done, and also along the Dunnville dam embankment.

The Dunnville and Bird road swing bridges were painted two coats.

Eighty rods of the outlet from Cranberry Creek culvert were straightened, widened and deepened, and the back ditches between Marshville and Broad Creek were cleaned out and slides and obstructions of other kinds throughout were removed.

Repair scow was caulked and pile driver and punts were repaired and painted and 6 new oars were made.

Dug out old decayed posts and put in new ones for bridge over the Feeder lock at Welland Junction and cleared the approaches to the lock of all flood timbers and rubbish.

Took down old unsafe highway bridge across the Welland raceway, near G. Hannah's house, and built and put up new one in place of same.

All the waste weir valves and machinery throughout were kept in good working order.

All thistles and other weeds were cut on all Government property.

#### OLD WELLAND CANAL.

*Lock No. 1, Level and Bridge.*—Segmental planks were put at end of the bridge, and the floating towpath was repaired at different points, from time to time.

*Lock No. 2, Level and Bridge.*—Repaired towpath near 12-mile Creek, searched for and removed sunken logs from bottom of canal, repaired the two waste weir bridges, and pile fenders in front of them, put in new timbers and part floor to upper weir, put new segment planks at ends of bridges at lock No. 2, and St. Paul St., repaired the west approach to St. Paul Street bridge, screwed up the truss rods, &c., at lock 2 bridge, and reset cams, &c., repaired the swing bridge across raceway twice, repaired leaks in banks alongside of weirs, and cleaned out and repaired the racks in front of them; took down old truss in towpath bridge near basket factory, and put up a new one.

*Lock No. 3 and Level.*—Repaired the towpath, repaired the masonry of lock, reset anchors and rehung 1 foot gate, rebuilt pile fender work in front of weir, rehung and rechaind slash boards.

*Hydraulic Race (No. 1).*—Repaired the iron trestle supporting the aqueduct, and repaired floor; rebuilt dry wall under road bridge on Thorold road; repaired and widened bank for 100 feet in length, where leak had occurred, unwatered and cleared out race; repaired and put in order the valves, gearing, and rack at the head of the race, on lock No. 11 level.



## Department of Railways and Canals.

*Lock No. 4, and Level and Bridge.*—Repaired towpath, renewed balance beam on head gate, and reset gear; repaired lock-tenders' houses and outbuildings, repaired approach to bridge, and made ditch, and small slope wall.

*Lock No. 5, and Level and Bridge.*—Repaired towpath, refloored 50 feet of heel path bridge across weir entrance, built wood shed at bridge, repaired weir bridge, and used 1 crab roller, put in 4 crab foundations; put sway braces in bridge, and screwed up truss rods, &c.

*Lock No. 6, and Level.*—Repaired floor of towpath bridge over weir, and stopped leaks in the bank at weir and other points.

*Lock No. 7 and Level and Bridge.*—Reset lock gate crab, and repaired the towpath alongside, built and set 1 new crab foundation, repaired swing bridge floor.

*Lock No. 8 and Level.*—Nil.

*Lock No. 9 and Level.*—Nil.

*Lock No. 10 and Level.*—Repaired the locktender's house, and dug vault and built privy, renewed the bridge across the raceway, and repaired approaches to it.

*Lock No. 11 and Level.*—Built and put in two new crab foundations, built new chimney on locktender's house.

*Lock No. 12 and Level.*—Repaired leak in bank near weir.

*Lock No. 13 and Level.*—Nil.

*Lock No. 14 and Level.*—Rebuilt bridge over weir, repaired leak in bank, put in 4 new crab foundations.

*Lock No 15 and Level and Bridge.*—Removed a large quantity of waste pulp from lock, rebuilt weir bridge, stopped leak in bank twice.

*Lock No. 16 and Level.*—Removed a large quantity of waste pulp from lock, put 1 new crab foundation at foot gate.

*Lock No. 17 and Level.*—Repaired and reshingled locktender's house, repaired crab and operating gear of lock gate, rebuilt weir bridge, and reset valve rods and gear, stopped leak in bank.

*Lock No. 18 and Level.*—Repaired and reshingled locktender's house, unwatered level, and repaired weir valves and renewed weir bridge, refloored road bridge over raceway, stopped leaks, and put in 2 new crab foundations.

*Lock No. 19 and Level.*—Reshingled locktender's house, repaired the cistern, and fence also, put in 4 new crab foundations, and repaired foot boards, stopped leak in bank.

*Lock No. 20 and Level.*—Nil.

*Lock No. 21 and Level.*—Nil.

*Lock No. 22 and Level and Bridge.*—Repaired the locktender's house, painted the bridge 2 coats, and repaired the fastenings and toe girts, repaired leak in bank.

*Lock No. 23 and Level.*—Repaired the locktender's house, fences and gates, repaired the weir bridge, and rechained slash boards, repaired foot board, and put in 4 new crab foundations.

*Lock No. 24 and Level and Bridge.*—Renewed the swing bridge fastenings and toe girts, built and put down 1 new crab foundation, repaired weir bridge and valve gear, and repaired leak.

*Lock No. 25 and Level and Bridges.*—Repaired O'Neill's swing bridge fastenings and repaired the float, stopped leaks at Thorold, Davis's basin, and Higgins, made up towpath above Marlatt's bridge. Took down old swing bridge at Allanburgh, and built and erected a new one in its place. Repaired Marlatt's swing bridge.

Took out the old spillway on the Thorold race, and filled in the gap where it had been and made a water tight bank, put in dam above O'Neill's bridge, to assist

in unwatering for spring repairs, and removed it when no longer required, caulked valves in Allanburgh weir.

Loaded 40 cubic yards gravel at lock No. 2 and took to Allanburgh bridge, for approaches.

Took down the old bridge fenders at Allanburgh bridge, and drove piles and completed new, the necessary fenders.

*Gate Yard and Shops at Lock 21, Old Canal.*—Stripped the scow "Chippewa" for new deck and caulked her. Rebuilt hand dredge and put on crab, chains, shovels. Loaded scow "Chippewa" with firewood and took to Port Dalhousie. Split from pile tops 120 fence posts. Hauled out and rebuilt old ferry scow from Air-line ferry. Stripped the "Hercules" pile driver and boarding boat and repaired same. Built new swing bridge to take the place of old one across canal foot of Allanburgh lock, and painted it. Repaired and caulked the derrick scow "Alabama" from No. 3 division. Repaired derrick scow "Chippewa" and put in new quarter deck and rakes. Cut up old timber and delivered at lock shanties for fuel, and to bridges and canal office. Took two old floats apart and hauled them up into gate yard to use for repairs, etc. Took old gate yard shed from lock 7 yard, on scow to gate yard lock 21. Erected iron shed at gate yard from old building brought from lock 7 yard. Framed a temporary bridge to be used at Weiland while the swing bridge was being replanked, and loaded it on scow. Gathered up all the old iron, say seventy tons, and stored in new iron shed at gate yard, and sorted same. Cut lot of old timbers into stove wood for the winter watchmen's use. Made two cases for blanks for the canal office. Built new blacksmith shop at gate yard and put in forge, bellows and bonnet, anvil, and made tools for the outfit, also bolts and other smithwork. Stripped and cut up two old lock gates. Laid up yard derrick and fitted up shops with needed machinery. Built four 8 inch square slush pumps 16 feet. Put in new deck and caulked the pile driver scow "Alexander"; payed her with pitch and painted her, and put on new temporary deck to allow her to be used at Air-line ferry. Repaired 8 old and made 6 new wheelbarrows. Made four 14 ft. boat oars. Unblocked all bridges for season. Hauled out on to ways the derrick scow "Hamilton," and repaired and launched her. Rebuilt float bridge across the gate yard slip. Loaded 24 new snubbing posts on scow, and towed them up to and distributed them along No. 3 division. Repaired the old flume supplying gate yard wheel, and cleared away for and made a permanent launching place adjoining gate yard lock 21. Built new small boat as tender for the canal scow "Hercules." Drew out the water, and repaired the water power gearing at gate yard shop. Hauled out boarding boat on the ways and partially rebuilt it. Built of old materials a machine room 17 x 22 ft. on gate yard. Made 84 foxed and spiked bolts at yard shop for No. 3 division. Hauled out several scow loads of old timber piles, etc., at gate yard during the year. Put in new 6-inch water wheel at gate yard to drive the fan for smith shop.

#### *Generally.*

Repaired the weir aprons and cleaned out the lock bottoms where necessary, while water was drawn out of canal between locks 2 and 25, and repaired the lock gate chains and cables, valves and gearing. Made all new and repaired all iron work required for repairs to underwater work throughout canal at the smith shop at gate yard. Pointed the stone walls of weirs where required.

Cut all thistles and weeds along canal, raceways and other Government property.

The accompanying statement "A" contains the amounts collected, or to be collected for damage to canal works; the practice in these cases where the damage is comparatively small, has been to approximate the cost of repair, and collect that amount from the vessel before she left the canal; when the repairs have been completed, an account in detail is furnished, and the unexpended balance, if any, refunded.

## Department of Railways and Canals.

In the matter of the "City of Windsor" which carried away the four gates of lock No. 1, Old Canal, on May 30th, 1894, it was expected that the amount of the damage (\$3,581.65) would have appeared in the statement "A", as the matter passed through the courts, and the vessel was to be sold by order of the court, to satisfy the claim, and doubtless will be. There are some similar outstanding accounts of earlier dates, unless they have been settled through other channels.

Statement "B" contains the amounts collected or to be collected from vessels, or canal employees for breaches of canal rules.

Statements "C" and "D" contain the highest and lowest recorded depths of water upon the new and old lock mitre sills at Port Dalhousie and Port Colborne, in each month of the fiscal year.

The canal was closed 11th December, 1894, and was opened for navigation April 20th, 1895.

### WORK CHARGEABLE TO INCOME.

*Removing East Pier Superstructure, Port Dalhousie.*—The removal of the superstructure of the east pier at Port Dalhousie, has been continued in concrete, tenders having been called for that work, and the contract awarded to Messrs. Battle & Newman, of St. Catharines and Thorold, their tender being the lowest.

The existing timber superstructure is being removed to the low water level of the contract, and concrete blocks 4 x 4 x 6 ft. made of Portland cement, are arranged side by side upon the cribwork, and the centre space filled in with concrete made of natural cement.

The work has progressed fairly, as specified, and from present indications the amount available will be expended by the time for ceasing operations this autumn.

*Constructing a stone arch culvert at Feeder Junction.*—Tenders were invited for this work and the contract was awarded to Messrs. Battle & Newman, the lowest; the work was completed as specified, at the time required.

*Cleaning out and deepening back ditches on the line of the Feeder.*—Tenders were invited for this work and sections Nos. 1 and 2 were awarded to Joseph Buliung, Nos. 3, 4 and 5 being awarded to Francis Hicks.

The three last named sections were completed at the time specified. The first and second were not, but are now about finished.

### CHARGEABLE TO CAPITAL.

*Removing Shoal at Port Colborne.*—The shore currents at Port Colborne had caused the formation of small shoals of sand at the entrance to the harbour, which the unusually low water made it necessary to have removed.

Tenders for the work were invited, and that of Messrs. Murray & Cleveland being the lowest, was accepted;

A dredge, a tug, and two dump scows, were sent from Toronto, and the shoals were removed where required.

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

W. G. THOMPSON, M.I.C.E.,  
*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer, Railways and Canals,  
Ottawa.

"A."

STATEMENT of damages to Welland Canal property, during the Fiscal Year ended 30th June, 1895, and amount paid on account of damages in the same year.

Date of Damage.	Name of Vessel.	AMOUNT OF DAMAGES.		Date Paid.	WHERE PAID.
		Paid.	Unpaid.		Collector's Office.
1893.		\$ cts.	\$ cts.	1894.	
April 24.....	Steamer N. K. Fairbanks...	14 17		Oct. 10.....	Port Dalhousie.
May 13.....	Barge Manly.....	16 40		Aug. 6.....	do do
June 14.....	Steamer Waverly.....	50 00		Dec. 2.....	Port Colborne.
				1895.	
July 27....	do Geo. Spencer.....	10 00		April 29....	do do
1894.					
April 27.....	Barge Baltic.....	9 55		do 27.....	Port Dalhousie.
do 27.....	Steamer Walter Vail.....	48 18		do 27.....	Port Colborne.
				1894.	
May 5.....	do Gov. Smith.....	8 75		July 8.....	Port Dalhousie.
June 27.....	do H. K. Moore.....	50 00		do 2.....	do do
July 20....	Barge Minnedosa.....	12 05		Sept. 12.....	do do
do 21....	Steamer Escanaba.....	5 00		do 12.....	do do
Aug. 11.....	do Sequin.....	6 11		Oct. 12.....	Port Colborne.
do 12.....	do Bannockburn.....	15 05		Aug. 25.....	do do
do 18.....	do Egyptian.....	273 81		do 11.....	do do
do 29....	do Argonaut.....	9 06		Sept. 15.....	do do
				1895.	
Sept. 18.....	Schooner Thos. L. Parker....	8 45		May 17.....	do do
				1894.	
Oct. 11.....	Steamer N. K. Fairbank....	63 95		Nov. 2.....	Port Dalhousie.
do 22....	do Bannockburn.....	12 89		do 5.....	Port Colborne.
				1895.	
Nov. 15.....	do Pueblo.....	15 00		April 30.....	Port Dalhousie.
1895.					
April 22.....	do City Owen Sound....	10 07		May 18.....	Port Colborne.
do 25.....	do F. H. Prentice.....	20 32		do 2.....	do do
do 27.....	do Arabian.....	6 54		do 14.....	Port Dalhousie.
May 13.....	do Topeka.....	6 14		June 4.....	Port Colborne.
do 14.....	do Iron Age.....	150 00		May 15.....	do do
do 15.....	do Carinona.....	7 00		do 21.....	do do
do 15.....	Barge St. Lawrence.....	5 16		do 21.....	do do
do 22.....	Steamer W. B. Morley.....		19 44		
do 22.....	Barge Minnedosa.....	15 44		June 10.....	Port Dalhousie.
do 31.....	Steamer Bannockburn.....	21 04		do 14.....	do do
June 5.....	do Saginaw Valley.....	300 00		do 27.....	do do
do 12.....	do Sequin.....		5 20		
do 21.....	Schooner Albatros.....		19 02		
	Total.....	1,170 13	43 66		

## Department of Railways and Canals.

"B."

**STATEMENT of Fines collected from Vessels contravening Canal Regulations, and from Locktenders for neglect of duty, also for use of Government Property during the Fiscal Year ended 30th June, 1895.**

Date of Fines.	Name of Vessel.	Amount of Fines.		Date paid.	Where paid. Collector's Office.
		Paid.	Unpaid.		
1894.		\$ cts.	\$ cts.	1894.	
June 29....	Steamer Melbourne.....	10 00		July 9....	Port Dalhousie
July 4....	do Delaware.....	10 00		do 4....	Port Colborne.
Nov. 3....	do Glengary.....	20 00		Nov. 20....	do
do 3....	Brg. Minnedosa.....	10 00		do 20....	do
1895.				1895.	
June 1....	Schr. Sir C. T. Vanstra- benzie.....	20 00		June 3....	do
do 3....	Steamer Business.....		20 00		
	do S. J. Macey.....		20 00		
1895.	<i>Locktenders.</i>			1895.	
May 27....	Isaac Johnston.....	5 00		May 27....	Port Dalhousie.
do 27....	James R. Keys.....	5 00		do 27....	do
1894.	<i>Use of Government Property.</i>			1894.	
Nov. 3....	Steamer N. K. Fairbanks— For use of diving appa- ratus.....	14 00		Nov. 14....	Port Colborne.
	Total.....	94 00	40 00		

"C."

**STATEMENT showing the Highest and Lowest Depth of Water on the Lower Mitre Sill Lock No. 1, Old Welland Canal, Port Dalhousie, for Fiscal Year ended 30th June, 1895.**

Months.	Lower Sill.		Months.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1894.	Ft. in.	Ft. in.	1895.	Ft. in.	Ft. in.
July.....	13 9	13 4	January.....	11 9	11 0
August.....	13 7	12 7	February.....	11 5	11 0
September.....	12 9	12 3	March.....	11 10	11 2
October.....	12 5	11 10	April.....	12 1	11 6
November.....	12 5	11 3	May.....	12 2	11 10
December.....	11 11	11 4	June.....	12 0	11 8

STATEMENT showing the Highest and Lowest Depth of Water on the Lower Mitre Sill Lock No. 1, New Welland Canal, Port Dalhousie, for Fiscal Year ended 30th June, 1895.

Months.	Lower Sill.		Months.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1894.	Ft. in.	Ft. in.	1895.	Ft. in.	Ft. in.
July .....	16 8	16 3	January .....	14 8	13 11
August .....	16 6	15 6	February .....	14 4	13 11
September .....	15 8	15 2	March .....	14 9	14 1
October .....	15 4	14 9	April .....	15 0	14 5
November .....	15 4	14 2	May .....	15 1	14 9
December .....	14 10	14 3	June .....	14 11	14 7

"D."

STATEMENT showing the Highest and Lowest Depth of Water on the Upper Mitre Sill of Old Lock at Port Colborne, Welland Canal, for Fiscal Year ended 30th June, 1895.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1894.	Ft. in.	Ft. in.	1895.	Ft. in.	Ft. in.
July .....	12 10	11 7	January .....	13 2	9 7
August .....	12 9	10 9	February .....	10 7	10 2
September .....	12 10	11 0	March .....	10 10	9 4
October .....	12 7	10 11	April .....	10 11	9 9
November .....	14 4	10 2	May .....	11 11	10 7
December .....	12 0	9 10	June .....	11 5	10 7

STATEMENT showing the Highest and Lowest Depth of Water on the Upper Mitre Sill of New Lock, at Port Colborne, Welland Canal, for the Fiscal Year ended 30th June, 1895.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1894.	Ft. in.	Ft. in.	1895.	Ft. in.	Ft. in.
July .....	15 9	14 6	January .....	16 1	12 6
August .....	15 8	13 8	February .....	13 6	13 1
September .....	15 9	13 11	March .....	13 9	12 3
October .....	15 6	13 10	April .....	13 10	12 8
November .....	17 3	13 1	May .....	14 10	13 6
December .....	14 11	12 9	June .....	14 4	13 6

# Department of Railways and Canals.

## ST. PETER'S CANAL.

SUPERINTENDING ENGINEER'S OFFICE,  
St. PETER'S, 31st July, 1895.

SIR,—I have the honour to submit the annual report of the works in my charge for the fiscal year ended 30th June, 1895.

The only work undertaken was the unwatering of the lock pit for the purpose of renewing the lock gates, mitre-sills, and flooring of the lock, which divers James Sampson and R. J. Sutherland who I got to examine them (independent of each other) reported to be badly eaten, with the "teredo."

The lock gates as I already informed you could only be operated during the past three seasons with very great difficulty, several of them refused to mitre, and the divers were of opinion from their general appearance, that some of them were in danger of collapsing if not attended to immediately.

It was estimated from the best information obtainable, that it would take from 4 to 5 months to complete this work, and to admit of its being carried on so as to interfere as little as possible with navigation, it was decided to close the canal on the 15th of December and re-open it on the 1st of May: tenders for the work having been duly called for a contract was entered into for its execution within these dates, but the contractor having failed to unwater the lock, the work was taken out of his hands on the 24th of April, and is now being completed at his expense.

I may say that the unwatering of the lock containing as it does over 2,000,000 imperial gallons, with a head of 26 feet of water on the Atlantic end, and a 7 feet tide, and 20 feet on the lake end, proved to be a very much more formidable operation than was expected, the principal cause being that the clay puddle of 3 feet wide on the west side and 4 feet wide on the east side which the original specification called for and which it was therefore expected had been placed, was found to have been omitted back of the wing walls on the Atlantic end, and instead heavy cribs over thirty feet high filled with stone were placed which had to be cut away with divers and sheet piled through them to solid ground: on the lake end for a similar purpose it became necessary to remove a crib 25 feet high on the west side, besides a very heavy stone wall twenty feet high on the east side, through which the lake water was freely passing and coming up under the lock walls into the lock. In brief, when this lock was built no provision was made for unwatering it: but the most serious difficulty of all that had to be contented with was a continuous flow of about 90,000 gallons of water per hour from the old lock (which is apparently fed from the Atlantic and which there is no feasible method of reaching to stop it) a quantity sufficient in itself to raise the water in the lock one foot per hour, this extra work which could not have been foreseen besides adding to the cost delayed the completion of the work very materially.

The timber that is being used for the repairs is creosoted pitch pine, which was procured from the Lehigh Valley Creosoting Works.

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

WM. McCARTHY,  
*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister of Railways and Canals,  
Ottawa.

## APPENDIX No. 8.

OFFICE OF THE INSPECTOR OF CANALS,  
HAMILTON, 9th August, 1895.

SIR,—I have the honour to report that during the fiscal year ended 30th of June, 1895, I inspected all offices for collection of tolls on Dominion canals.

From time to time, at dates of inspection, detailed returns showing particulars of the collections and working of each office, were submitted to the department.

On account of canal revenue, the aggregate receipts for the fiscal year 1894-95 were \$302,632.44.

For hydraulic and other rents, receipts for the fiscal year were \$41,506.46.

Classified under subdivisions of tolls, wharfage and storage, fines, damages, hydraulic and other rents, and sundry miscellaneous minor receipts, the exhibit of revenue at the thirty offices established for collection of tolls, is as follows:—

## WELLAND CANAL.

Collection Divisions.	CANAL REVENUE.					Total Canal Revenue.	Hydraulic and Other Rents.
	Tolls.	Wharfage and Storage.	Fines.	Damages.	Other Receipts.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Port Colborne.....	100,039 22	.....	95 00	646 19	63 18	100,843 59	257 50
Port Dalhousie....	53,635 85	.....	20 00	465 19	21 26	54,142 30	176 00
Dunnville.....	356 75	.....	.....	.....	.....	356 75	506 67
Port Maitland.....	35 70	.....	.....	.....	.....	35 70	.....
Port Robinson.....	216 90	.....	.....	270 00	30 00	516 90	885 00
St. Catharines.....	445 59	.....	.....	.....	.....	445 59	5,038 26
Chippewa.....	22 60	.....	.....	.....	.....	22 60	5 00
Totals.....	154,752 61	.....	115 00	1,381 38	114 44	156,363 43	6,868 43

## ST. LAWRENCE CANALS.

Valleyfield.....	1,462 28	30 00	50 00	77 00	.....	1,619 28	2,716 00
Cornwall.....	26,683 00	.....	10 00	.....	.....	26,693 00	1,395 00
Cardinal.....	825 47	.....	45 00	.....	.....	870 47	560 00
Lachine.....	2,794 89	16 35	.....	1,009 41	.....	3,820 65	.....
Montreal.....	21,840 13	2,391 58	10 00	1,196 03	13,938 25	39,375 99	28,950 03
Kingston.....	8,470 24	.....	.....	.....	.....	8,470 24	.....
Totals.....	62,076 01	2,437 93	115 00	1,273 03	14,947 66	80,849 63	33,621 03

## CHAMBLY CANAL.

Chambly.....	9,457 69	.....	.....	10 00	.....	9,467 69	.....
St. Johns.....	11,439 57	.....	5 00	.....	.....	11,444 57	100 00
St. Ours Lock.....	599 35	.....	.....	2 00	.....	601 35	.....
Totals.....	21,496 61	.....	5 00	12 00	.....	21,513 61	100 00



# Department of Railways and Canals.

REVENUE, by districts, wharfage, fines, &c.—*Concluded.*

## OTTAWA RIVER CANALS.

Collection Divisions.	CANAL REVENUE.					Total Canal Revenue.	Hydraulic and Other Rents.
	Tolls.	Wharfage and Storage.	Fines.	Damages.	Other Receipts.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
Ottawa.....	19,252 05					19,252 05	
Grenville.....	13,243 87				8 00	13,251 87	13 00
Carillon.....	186 57		12 00	20 00		218 57	23 00
St. Anne's.....	1,145 70				0 65	1,146 35	
Totals.....	33,828 19		12 00	20 00	8 65	33,868 84	36 00

## RIDEAU CANAL.

Ottawa.....	3,724 21	69 02			310 00	4,103 23	639 50
Kingston Mills.....	1,479 82					1,479 82	105 00
Smith's Falls.....	629 67					629 67	84 50
Totals.....	5,833 70	69 02			310 00	6,212 72	829 00

## ST. PETER'S CANAL.

St. Peter's.....	2,072 42					2,072 42	
------------------	----------	--	--	--	--	----------	--

## MURRAY CANAL.

Brighton.....	699 95					699 95	
---------------	--------	--	--	--	--	--------	--

## TRENT VALLEY CANALS.

Burleigh Falls.....	68 19				0 25	68 44	
Bobcaygeon.....	425 78				93 00	518 78	
Fenelon Falls.....	46 02					46 02	50 00
Hastings.....	28 05					28 05	
Peterborough.....	285 28					285 28	2 00
Buckhorn.....	105 27					105 27	
Totals.....	958 59				93 25	1,051 84	52 00
Grand Totals..	281,718 08	2,506 95	247 00	2,686 41	15,474 00	302,632 44	41,506 46

Bank remittances in favour of the Receiver General have been made at intervals, determined by the department, to balance the receipts tabulated above.

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

H. B. WITTON,  
*Inspector of Canals.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister of Railways and Canals.

## APPENDIX No. 9.

## RAILWAY SUBSIDIES.

TABLE of Cash Subsidies granted and paid in aid of Railway Construction.

No.	Name of Railway.	No. of miles built.	No. of miles paid and provided for.	Subsidy paid and Available at June 30, 1895.	Subsidy paid to 30th June, 1895.	Subsidy paid to 30th Sept., 1895.
				cts.	\$ cts.	\$ cts.
1	Albert Southern.....	16	16	50,460 00	50,460 00	50,460 00
2	Baie des Chaleurs.....	70	70	620,000 00	620,000 00	620,000 00
3	Beauharnois Junction.....	19.5	19.5	62,400 00	58,900 00	58,900 00
4	Belleville and North Hastings....	6.84	6.84	21,888 00	21,888 00	21,888 00
5	Belleville and Lake Nipissing.....		30	96,000 00		
6	Boston and Nova Scotia.....		35.50	113,600 00		
7	Bracebridge and Baysville.....		15.00	48,000 00		
8	Brantford, Waterloo & Lake Erie	18	18	57,600 00	52,810 00	52,810 00
9	Brockville, Westport and Sault Ste. Marie.....	44.50	60	192,000 00	105,200 00	105,200 00
10	Buctouche and Moncton.....	31.75	32	102,400 00	101,600 00	101,600 00
11	Canada Atlantic.....	54.05	54.05	282,355 20	282,355 20	282,355 20
12	Canada Central.....	120	120	1,525,250 00	1,525,250 00	1,525,250 00
13	Canada Eastern.....	107	108.50	347,200 00	342,400 00	342,400 00
14	Canadian Pacific.....	1,905	1,905	25,000,000 00	25,000,000 00	25,000,000 00
	do (extension).....	170	185	1,580,000 00	1,528,000 00	1,528,000 00
15	Cape Breton Extension.....		30	96,000 00		
16	Caraquet Railway.....	67	67	224,000 00	224,000 00	224,000 00
17	Central Ontario.....		20	64,000 00		
18	Central (of New Brunswick).....	44.50	59.50	123,639 00	75,639 00	75,639 00
19	Cobourg, Northumberland and Pacific.....		49	156,800 00		
20	Cornwallis Valley.....	14	14	44,800 00	44,800 00	44,800 00
21	Columbia and Kootenay.....	27.75	27.75	88,800 00	88,800 00	88,800 00
22	Cumberland.....	14	14	39,850 00	39,850 00	39,850 00
23	Dominion Line Co.....	4.8	7	15,360 00	15,360 00	15,360 00
24	Dominion Coal Co.....	10	28	89,600 00	32,000 00	87,808 00
25	Drummond Counties.....	89.98	93.10	297,920 00	287,936 00	287,936 00
26	Elgin, Petittcodiac and Havelock.	12.00	12.00	38,400 00	38,400 00	38,400 00
27	Erie and Huron.....	30.00	30.00	96,000 00	96,000 00	96,000 00
28	Esquimalt and Nanaimo.....	71	71	750,000 00	750,000 00	750,000 00
29	Fredericton and St. Mary's Railway Bridge.....	1.33	1.33	30,000 00	30,000 00	30,000 00
30	Goderich and Wingham.....		31	99,200 00		
31	Grand Trunk, Georgian Bay and Lake Erie.....	12.42	15	48,000 00	39,744 00	39,744 00
32	Great Eastern.....	12.50	32.50	104,345 00	40,345 00	40,345 00
33	Great Northern.....	34.59	99.59	318,688 00	110,688 00	110,688 00
34	Guelph Junction.....	15.25	15.25	46,000 00	46,000 00	46,000 00
35	Harvey Branch.....	3	3	9,600 00	5,553 57	5,553 57
36	Hereford.....	48.50	48.50	155,200 00	155,200 00	155,200 00
37	Inverness and Richmond.....		25	80,000 00		
38	Irondale, Bancroft and Ottawa....	30	50	160,000 00	96,000 00	96,000 00
39	International.....	49	49	156,800 00	156,800 00	156,800 00
40	Jacques Cartier Union.....			20,000 00		
41	Joliette and St. Jean de Matha....		20	64,000 00		
42	Joggins.....	12	12	37,500 00	37,500 00	37,500 00
43	Kingston and Pembroke.....	15	15	48,000 00	48,000 00	48,000 00
44	Kingston, Napanee and Western....	61.35	80	268,400 00	208,732 80	208,732 80
45	L'Assomption.....	3.50	3.50	11,200 00	11,200 00	11,200 00
46	Lake Erie and Detroit River....	84.04	85	342,400 00	338,731 00	338,731 00
	Carried forward.....	3,330.15	3,783.41	34,223,655 20	32,706,142 57	32,761,950 57

## Department of Railways and Canals.

**TABLE of Cash Subsidies granted and paid in aid of Railway Construction—Con.**

No.	Name of Railway.	No. of miles built.	No. of miles paid and provided for.	Subsidy paid and Available.	Subsidy paid to 30th June, 1895.	Subsidy paid to 30th September, 1895.
				\$ cts.	\$ cts.	\$ cts.
	Brought forward . . . . .	3,330 15	3,783 41	34,223,655 20	32,706,142 57	32,761,950 57
47	Lake Temiscamingue Colonization Railway Co. . . . .	45 84	50	327,700 00	285,958 95	285,958 95
48	Leamington and Lake St. Clair . . . . .	16	16	51,200 00	51,200 00	51,200 00
49	Lindsay, Bobcaygeon & Pontypool . . . . .	32	32	102,400 00	102,400 00	102,400 00
50	Lotbiniere and Mégantic . . . . .	23	30	96,000 00	73,600 00	73,600 00
51	Manitoba and North-western . . . . .	100	100	320,000 00	320,000 00	320,000 00
52	Manitoulin and North Shore . . . . .	40	40	128,000 00	128,000 00	128,000 00
53	Montreal and Sorel . . . . .	44 67	44 67	93,757 57	93,757 57	93,757 57
54	Montreal and Lake Champlain . . . . .	83	83	103,600 00	103,600 00	103,600 00
55	Montreal and Western . . . . .	70	70	361,270 00	361,270 00	361,270 00
56	Montreal and Lake Maskinongé . . . . .	12 90	12 90	41,280 00	41,280 00	41,280 00
57	Montreal and Ottawa . . . . .	23	60	192,000 00	73,600 00	73,600 00
58	Montfort Colonization . . . . .	21	33	105,600 00	67,200 00	67,200 00
59	Nakusp and Slocan . . . . .	36 80	38	121,600 00	117,760 00	117,760 00
60	New Brunswick and P. E. I. . . . .	35 45	35 45	113,440 00	113,440 00	113,440 00
61	New Glasgow Iron and Coal Co. . . . .	12	17 50	50,000 00	38,400 00	39,840 00
62	Nicola Valley Ry. Co. . . . .	53	53	169,600 00	169,600 00	169,600 00
63	Nipissing and James Bay . . . . .	68	68	217,000 00	217,000 00	217,000 00
64	North Shore . . . . .	159	159	954,000 00	954,000 00	954,000 00
65	Northern Pacific Junction . . . . .	110	110	1,320,000 00	1,320,000 00	1,320,000 00
66	Nova Scotia Central . . . . .	73 50	73 50	235,200 00	230,700 00	230,700 00
67	Nova Scotia Southern . . . . .	75	75	240,000 00	240,000 00	240,000 00
68	Ontario and Pacific . . . . .	53 87	53 87	172,400 00	172,400 00	172,400 00
69	Ontario, Belmont and Northern . . . . .	10 00	10 00	32,000 00	32,000 00	32,000 00
70	Ontario and Quebec . . . . .	61 25	61 25	196,000 00	196,000 00	196,000 00
71	Orford Mountain . . . . .	26 50	26 50	84,800 00	84,800 00	84,800 00
72	Oshawa Railway and Navn. Co. . . . .	7	7	22,400 00	22,400 00	22,400 00
73	Ottawa & Gatineau Valley Ry. Co. . . . .	54	82 00	384,000 00	284,128 00	284,128 00
74	Ottawa, Arnprior & Parry Sound . . . . .	82	107	430,400 00	350,400 00	350,400 00
75	Parry Sound Colonization Ry. Co. . . . .	40	60	192,000 00	128,000 00	128,000 00
76	Pontiac and Kingston . . . . .	22	22	70,400 00	70,400 00	70,400 00
77	Pontiac and Pacific Junction . . . . .	70	92 50	313,100 00	193,578 00	193,578 00
78	Pontiac and Ottawa . . . . .	23	23	73,600 00	73,600 00	73,600 00
79	Phillipsburg Junction . . . . .	6 75	6 75	21,600 00	21,600 00	21,600 00
80	Pontiac and Renfrew . . . . .	4 25	4 25	13,600 00	13,600 00	13,600 00
81	Port Arthur, Duluth and Western . . . . .	84 75	84 75	271,200 00	271,200 00	271,200 00
82	Quebec Central . . . . .	15 50	74 86	348,342 00	60,342 00	60,342 00
83	Quebec, Montreal, Ottawa and Occidental . . . . .	120 00	120	1,440,000 00	1,440,000 00	1,440,000 00
84	Quebec and Lake St. John . . . . .	245 85	259 85	1,047,799 50	1,002,999 50	1,006,743 50
85	Quebec, Moutinorency and Charlevoix . . . . .	30	30	96,000 00	96,000 00	96,000 00
86	Restigouche and Victoria . . . . .	35	35	112,000 00	112,000 00	112,000 00
87	Shuswap and Okanagan . . . . .	51	51	163,200 00	163,200 00	163,200 00
88	South Shore, N.S. . . . .	35	35	112,000 00	112,000 00	112,000 00
89	South Norfolk . . . . .	17	17	54,400 00	54,400 00	54,400 00
90	South Eastern Bridge . . . . .	50 00	50 00	50,000 00	50,000 00	50,000 00
91	South Ontario Pacific . . . . .	49	49	158,400 00	158,400 00	158,400 00
92	Strathroy and Western Counties . . . . .	25	25	80,000 00	80,000 00	80,000 00
93	St. Catharines & Niagara Central . . . . .	12	46	147,200 00	38,400 00	38,400 00
94	St. Clair Frontier Tunnel . . . . .	2 23	2 23	375,000 00	375,000 00	375,000 00
95	St. Lawrence, Lower Laurentian and Saguenay . . . . .	38 85	38 85	217,600 00	217,600 00	217,600 00
96	St. Louis, Richibucto & Buctouche . . . . .	7	7	22,400 00	22,400 00	22,400 00
97	St. John Valley and Riv. du Loup . . . . .	15	15	48,000 00	48,000 00	48,000 00
98	St. Lawrence and Adirondack . . . . .	20 31	20 31	65,001 60	65,001 60	65,001 60
99	Témiscouata . . . . .	112 95	113 20	646,400 00	645,950 00	645,950 00
100	Thousand Island . . . . .	4 33	17	54,400 00	24,400 00	24,400 00
101	Tilsonburg, Lake Erie and Pacific . . . . .	16	16	51,200 00	51,200 00	51,200 00
102	Tobique Valley . . . . .	27 88	43	182,400 00	134,016 00	134,016 00
103	Toronto, Grey and Bruce . . . . .	4 60	5	14,656 00	14,656 00	14,656 00
	Carried forward . . . . .	5,235 31	6,645 60	47,337,201 87	40,135,580 19	40,196,572 19

TABLE of Cash Subsidies granted and paid in aid of Railway Construction—*Con.*

No.	Name of Railway.	No. of miles built.	No. of miles paid and provided for.	Subsidy paid and Available.	Subsidy paid to 30th June, 1895.	Subsidy paid to 30th September, 1895.
				\$ cts.	\$ cts.	\$ cts.
	Brought forward . . . .	5,235·31	6,645·60	47,337,201 87	40,135,580 19	40,196,572 19
104	United Counties . . . . .	40·64	64	204,800 00	131,701 15	131,701 15
105	Waterloo Junction . . . . .	10·25	10·25	32,800 00	32,800 00	32,800 00
106	Western Counties . . . . .	20	20	500,000 00	500,000 00	500,000 00
107	Western Ontario Pacific and Ontario and Quebec . . . . .	18·75	18·75	60,000 00	60,000 00	60,000 00
108	Woodstock and Centreville . . . . .		26	83,200 00		
	For a Railway from—					
109	Abbotsford Stat'n to Chilliwack		21	67,200 00		
110	Cape Tourmente towards Murray Bay . . . . .		20	64,000 00		
111	Cap de la Magdeleine to C.P.R.		3	9,600 00		
112	Cross Creek Station to Stanley Village . . . . .		6	19,200 00		
113	Elk and Kootenay Rivers to Cove Creek . . . . .		34	108,800 00		
114	Hebert River to Young's Mills . . . . .		5	16,000 00		
115	Lime Ridge northerly to Megantic . . . . .		50	160,000 00		
116	Newcastle to point opposite Chatham . . . . .		6	19,200 00		
117	Point on I.C.R. towards Havelock . . . . .		20	64,000 00		
118	Pokemouche Siding to Tracadie Village . . . . .		12	38,400 00		
119	St. John to Barnsville . . . . .		10	32,000 00		
120	St. Eustache to St. Placide . . . . .		18	57,600 00		
121	St. Eustache to C.P.R. . . . .		12	38,400 00		
122	St. Placide to St. Andrews . . . . .		8	25,600 00		
123	St. Flavie or Little Métis to Matane . . . . .		50	160,000 00		
124	St. Rémi to St. Cyprien . . . . .		12	38,400 00		
125	St. Stephen to Milltown . . . . .		3·50	11,200 00		
126	Newport or Windsor to Truro . . . . .		90	300,000 00		
	Total . . . . .	5,324·95	7,165·10	49,447,601 87	40,860,081 34	40,921,073 34

STATEMENT showing Railways receiving Cash Subsidies of fixed amounts, payable Annually or Semi-annually for fixed period of years.

No.	Name of Railway.	Miles Subsidized.	Amount of Instalment.	Amount paid up to 30th June, 1895.
				\$
1	International (Atlantic and North-west) Railway Co . . . . .	252	\$93,300 per ½ year for 20 years.	1,119,600
2	Kingston, Smith's Falls and Ottawa Railway Co . . . . .	56	3,136 do 21	Nil.
	Total . . . . .	308		1,119,600

## Department of Railways and Canals.

STATEMENT showing Railways aided by the Grant of Loans.

No.	Name of Railway.	Amount of Loan authorized.	Amount loaned.	
		\$	\$ cts.	
1	Albert Railway Co. ....	15,000	14,725 56	
2	Fredericton and St. Mary's Bridge Co. ....	300,000	300,000 00	
3	St. John Bridge and Railway Extens. Co.	500,000	433,900 00	
		815,000	748,625 56	

STATEMENT showing Railways subsidized by the Grant of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Subsidy on value of Rails.	Subsidy in used Rails paid.	
			\$ cts.	\$ cts.	
1	Central Railway Co., of New Brunswick...	4,052	83,612 54	83,612 54	
2	Elgin, Petitcodiac and Havelock Ry Co. ....	2,201	44,252 82	44,252 82	
3	Chatham Branch Railway Company.....	958	24,439 84	24,439 84	
	Total .....	7,211	152,305 20	152,305 20	

STATEMENT showing Railways aided by the Loan of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Value of used Rails loaned.	Remarks.
			\$ cts.	
1	Kent Northern Railway Company.....	2,549	58,334 27	By 51 Victoria, chapter 3, these used rails will be granted as a subsidy (the section of road to be first laid with new steel rails weighing not less than 56 lbs per lin. yard and after an O.C. had been passed authorizing transfer.)
2	Halifax Cotton Company.....	233	4,335 00	
3	Steel Company of Canada.....	597	11,964 66	
4	Albert Railway Company.....	726	14,665 45	
	Total.....	4,105	89,299 38	

## STATEMENT showing Railways subsidized by Grants of Land.

No.	Act.	Name of Railway.	Estimated number of miles.	Acres granted per mile.	Total acres granted.
1	{ 52 Vic., c. 4. } { 53 Vic., c. 3. }	Alberta Railway and Coal Co.....	50	6,400	320,000
2	50-51 Vic., c. 23...	Alberta and Athabasca Railway Co.....	300	6,400	1,920,000
3	56-57 Vic., c. 6....	Brandon and South-western Railway Co....	17	6,400	108,800
4	53 Vic., c. 4.....	Calgary and Edmonton Railway Co.....	340	6,400	2,176,000
5	{ 54-55 Vic., c. 5. } { 56-57 Vic., c. 6. }	Canadian Pacific Railway Co.....	277	6,400	1,772,800
6	49 Vic., c. 11.....	North-west Central Railway Co.....	450	6,400	2,880,000
7	{ 52 Vic., c. 4. } { 53 Vic., c. 4. }	Lake Manitoba Railway and Canal Co.....	142	6,400	908,800
8	53 Vic., c. 4.....	Lac Seul Railway Co.....	18	6,400	115,200
9	{ 48-49 Vic., c. 60 } { 49 Vic., c. 11.. }	Manitoba North-western Railway Co.....	476	* { 6,400 } { 3,200 }	2,726,400
10	{ 48-49 Vic., c. 60 } { 54-55 Vic., c. 10 }	Manitoba South-western Colonization Railway Co.....	218½	6,400	1,396,800
11	53 Vic., c. 4.....	Manitoba South-eastern Railway Co.....	110	6,400	704,000
12	50-51 Vic., c. 23...	Medicine Hat Railway and Coal Co.....	8	6,400	51,200
13	52 Vic., c. 4.....	North-western Railway Co. of Canada.....	330	10,000	3,300,000
14	{ 48-49 Vic., c. 60 } { 50-51 Vic., c. 23 } { 52 Vic., c. 4.... }	North-western Coal and Navigation Co. ....	110	6,400	708,400
15	{ 48-49 Vic., c. 60 } { 50-51 Vic., c. 23 }	Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Co.....	347	6,400	2,220,800
16	{ 50-51 Vic., c. 23 } { 52 Vic., c. 4.... }	Red Deer Valley Railway and Coal Co.....	55	6,400	352,000
17	56-57 Vic., c. 6....	Rocky Mountain Railway and Coal Co. ....	60	6,400	384,000
18	56-57 Vic., c. 6....	Saskatchewan and Western Railway Co.....	15	6,400	96,000
19	{ 47 Vic., c. 25 } { 47 Vic., c. 70 } { 43 Vic., c. 59 }	Winnipeg and Hudson Bay Railway Co. ....	900	† { 6,400 } { 12,800 }	8,580,000
20	49 Vic., c. 11.....	Wood Mountain and Qu'Appelle Railway Co.	240	6,400	1,536,000
Total.....			4,463½		32,257,200

\*376 miles at 6,400 acres per mile and 100 miles at 3,200 acres per mile.

†475 miles at 6,400 acres per mile and 425 miles at 12,800 acres per mile.

# Department of Railways and Canals.

## APPENDIX No. 10.

### LIST OF RAILWAY SUBSIDY ACTS PASSED IN EACH YEAR.

**NOTE.**—The marginal number opposite each subsidy has reference to the alphabetical list in the Minister's report showing the action taken in cases where a contract for work has been made with any company.

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

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

- |    |  |           |
|----|--|-----------|
| 1. | For a railway from Gravenhurst to Callander, both in the province of Ontario, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole .....   | \$660,000 |
| 2. | For a railway from St. Raymond to Lake St. John, both in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 384,000   |
| 3. | For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, or between them, to Edmundston, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 240,000   |
| 4. | For a railway from Oxford to New Glasgow, both in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 224,000   |

“The said subsidies to be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to complete the said railways respectively, within a reasonable time, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in an agreement to be made by the company with the Government, and which the Government is empowered to make, and to be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, such proportion to be established by the report of the said Minister; provided always, that the granting of such bonuses or subsidies shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting therewith, as the Governor in Council may determine.”

By the special Act 45 Vic., cap. 55, 1882 (*Assented to 17th May, 1882*):—

- |    |   |           |
|----|---|-----------|
| 5. | A subsidy authorized in favour of “The Chignecto Marine Transport Railway Company,” provided that they construct and thereafter maintain and operate a ship railway, to be approved by the Government, across the Isthmus of Chignecto, from the Gulf of St. Lawrence to the Bay of Fundy, per year, for twenty-five years..... | \$150,000 |
|----|---|-----------|

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

- |    |   |         |
|----|---|---------|
| 6. | To the Baie des Chaleurs Railway Company, for 100 miles of their railway, from Métapediac, 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 |
| 8.  | To the Gatineau Valley Railway Company, for the first 50-mile section of their railway, from Hull station, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..  | 160,000   |
| 9.  | To the Great American and European Short Line Railway Company, for 80 miles of their railway, from Canso to Louisburg or Sydney, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....                                | 256,000   |
| 10. | To the International Railway Company, for 49 miles of their railway, from Sherbrooke, in the province of Quebec, to the international boundary line, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....  | 156,800   |
| 11. | To the Northern and Western Railway Company, for 32 miles of their railway, from the Intercolonial Railway, near the Miramichi, to Moran's, near Demphy village, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.. | 102,400   |
| 12. | To the Montreal and Western Railway Company, for the first 50-mile section of their railway, out of St. Jérôme, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.  | 160,000   |
| 13. | To the Napanee, Tamworth and Quebec Railway Company, for 28 miles of their railway, from Napanee to Tamworth, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 89,600    |
| 14. | To the Quebec and Lake St. John Railway Company, for 25 miles of their railway, from St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 80,000    |
|     | In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.   |           |
| 15. | For a railway from the International Railway at Petitcodiac to Havelock Corner, in the province of New Brunswick, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 38,400    |
| 16. | For a railway from Gravenhurst to Callander, 110 miles, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole.....   | 660,000   |
|     | In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.   |           |

“The nine subsidies first mentioned to be granted to the companies hereinbefore named respectively ; and the two subsidies last mentioned to be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to complete the said railways, respectively ; and all the eleven lines above mentioned, and also the lines of railway in respect of which it is provided by the Act of forty-fifth Victoria, chapter fourteen, that subsidies may be granted, shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years from and after the passing of this Act, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made by each company with the Government, and which the Government is empowered to make ; and all the said subsidies authorized by this Act, respectively, to be paid out of the Consolidated Revenue Fund of Canada by instalments, on the completion of each section of not less than ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, to be established by the report of the said Minister ; Provided always, that the granting of such subsidies shall be subject to such conditions for securing such running powers



## Department of Railways and Canals.

or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized as the Governor in Council may determine."

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

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

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

- 18.** To the Government of the province of Quebec, in consideration of their having constructed the railway from Quebec to Ottawa, forming a connecting line between the Atlantic and Pacific coasts via the Intercolonial and Canadian Pacific Railways, and being as such a work of national and not merely provincial utility, a subsidy not exceeding \$6,000 per mile for the portion between Quebec and Montreal, 159 miles, nor exceeding in the whole ..... 954,000
- 19.** And for the portion between Montreal and Ottawa, 120 miles, \$12,000 per mile, nor exceeding in the whole ..... 1,440,000
- 20.** For the construction of a line of railway connecting Montreal with the harbours of St. John and Halifax by the shortest and best practicable route, after the report of competent engineers, a subsidy not exceeding \$170,000 per annum, for fifteen years, or a guarantee of a like sum for a like period as interest on bonds of the company undertaking the work.
- 21.** For the construction of a line of railway from Oxford station, on the Intercolonial Railway, to Sydney or Louisburg, a subsidy not exceeding \$30,000 per annum for fifteen years or a guarantee of a like sum for a like period as interest on the bonds of the company undertaking the work, in addition to the subsidies previously granted, and also a lease or transfer to such company of the Eastern Extension Railway, from New Glasgow to Canso, with its present equipment.
- 22.** To the Quebec Central Railway Company, for a line of railway from Beauce Junction to the international boundary line, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole ..... 211,200
- 23.** For the extension of the Canadian Pacific Railway, from its terminus at St. Martin's Junction, near Montreal, or some other point on the Canadian Pacific Railway, to the harbour of Quebec, in such manner as may be approved by the Governor in Council, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole ..... 960,000
- 24.** To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria branch of the Midland Railway to the village of Bancroft, in the township of Dungannon, county of Hastings, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole ..... 160,000
- 25.** To the Pontiac Pacific Junction Railway, for a line of railway from Hull or Aylmer to Pembroke, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole ..... 272,000
- 26.** To the Gatineau Railway Company, for a line of railway from Kazabazua to Le Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole ..... 160,000
- 27.** To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth to Bogart and Bridgewater, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole ..... 70,400

<b>28.</b> To the Montreal and Western Railway Company, for a line of railway from the end of the line subsidized in the now last session of Parliament, towards Le Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$160,000
<b>29.</b> To the Northern and Western Railway Company, for a line of railway from Fredericton to the Miramichi River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (instead of the subsidy proposed in 1883).....	128,000
<b>30.</b> To the Erie and Huron Railway Company, for a line of railway from Wallaceburg to Sarnia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>31.</b> To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	262,400
<b>32.</b> To the Kingston and Pembroke Railway Company, for a line of railway from Mississippi to Renfrew, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
<b>33.</b> To the Great Northern Railway Company, for that portion of their railway between St. Jérôme and New Glasgow, in the county of Terrebonne, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
<b>34.</b> For a line of railway and bridge between the Jacques Cartier Union Railway Junction with the Canadian Pacific Railway and St. Martin's Junction connecting the Jacques Cartier Union Railway with the North Shore Railway proper, a subsidy not exceeding in the whole.....	200,000
<b>35.</b> For a line of railway from Richibucto to St. Louis, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
<b>36.</b> For a line of railway from Hopewell to Alma, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
<b>37.</b> For a line of railway from St. Andrew's to Lachute, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
<b>38.</b> For a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	217,600
<b>39.</b> For a line of railway from Annapolis to Digby, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
<b>40.</b> For a line of the Central Railway, from the head of Grand Lake to the Intercolonial Railway between Sussex and St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	128,000
<b>41.</b> To the Caraquet Railway Company, for the extension of their line of railway from Caraquet to Shippegan Harbour, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
<b>42.</b> For a branch of the Intercolonial Railway, from Metapediatic eastward towards Paspébiac, twenty miles, in the province of Quebec, a sum not exceeding in the whole.....	300,000
<b>43.</b> For a branch of the Intercolonial Railway, from Derby Station to Indian-town, fourteen miles, a sum not exceeding in the whole.....	140,000

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are

## Department of Railways and Canals

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

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

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

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

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

- 45.** To the Ottawa, Waddington and New York Railway and Bridge Company, for a line of railway from Ottawa to Waddington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 166,400
- 46.** To the New Brunswick and Prince Edward Island Railway Company, for a line of railway from Sackville to the Straits of Northumberland, at or near Cape Tormentine, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 118,400
- 47.** To the Montreal and Sorel Railway Company, for a line of railway from St. Lambert to Sorel, a subsidy not exceeding \$1,600 per mile, nor exceeding in the whole..... 72,000
- 48.** To the Brockville, Westport and Sault Ste. Marie Railway Company, for a line of railway from Brockville to Westport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 128,000
- 49.** To the Quebec and Lake St. John Railway Company, for a line of railway from its junction on the North Shore Railway to St. Raymond, upon condition of the company extending their road to a point 50 miles north of St. Raymond, a subsidy not exceeding \$3,200 per mile nor exceeding in the whole..... 96,000
- 50.** To the Northern and Western Railway Company, for a line of railway from the northern end of the 40 miles subsidized between Fredericton and the Miramichi River by 47 Victoria, chapter 8, to Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 19,200

---

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

<b>51.</b> To the Montreal and Champlain Junction Railway Company, for a line of railway from Brosseau's to Dundee, a subsidy not exceeding \$500 per mile, nor exceeding in the whole .....	\$30,000
<b>52.</b> To the Thunder Bay Colonization Railway Company, for a line of railway from the Murillo station of the Canadian Pacific Railway to the east end of Whitefish Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole .....	92,000
<b>53.</b> To the Central Ontario Railway Company, for a line of railway from Coe Hill or Rathbun, to Bancroft, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole .....	64,000
<b>54.</b> To the Belleville and North Hastings Railway Company, for a line of railway from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, a subsidy not exceeding \$1,500 per mile, nor exceeding in the whole .....	10,500
<b>55.</b> For a line of railway from Long Sault to the foot of Lake Temiscamingue, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole .....	25,600
<b>56.</b> For a line of railway from a point on the Canada Southern Railway near Comber, to Lake Erie, at or near the village of Leamington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . .	44,800
<b>57.</b> To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth towards Bogart and Bridgewater, 16 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy of . . .	70,000
<b>58.</b> To the Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of 62 miles, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, a subsidy of . . .	320,000
<b>59.</b> For a line of railway from the Grand Piles, on the River St. Maurice, to its junction with Lake St. John Railway, a distance of about 50 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, for a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy of .....	217,600
<b>60.</b> To the Canada Atlantic Railway Company, for a line of railway from Valleyfield to a point one and a half miles west of Johnston's, a subsidy not exceeding \$1,600 per mile, and from one and a half miles west of Johnston's to Lacolle; also from the present terminus at Ottawa, to the Chaudiere Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole .....	96,000
<b>61.</b> For a line of railway from Indiantown via the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	140,800

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

## Department of Railways and Canals.

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

By the Act 48-49 Vic., cap. 58, 1885 (*Assented to 20th July, 1885*):—

- 62.** For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, to Edmundston, in the province of New Brunswick, a subsidy not exceeding two thousand eight hundred dollars per mile for seventy-five miles, and six thousand dollars per mile for eight miles, nor exceeding in the whole two hundred and fifty-eight thousand dollars; the said subsidy to be in addition to the subsidy authorized to be granted in aid of the construction of the said railway by the Act forty-fifth Victoria, chapter fourteen, and constituting with the subsidy so authorized, a subsidy not exceeding in the whole four hundred and ninety-eight thousand dollars, and to be granted for the said railway upon the terms and conditions specified in the said Act, and payable out of the Consolidated Revenue Fund of Canada; and for the purpose of incorporating the persons undertaking the construction of the said railway and those who shall be associated with them in the undertaking, the Governor may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, which shall be similar to such of the franchises, privileges and powers granted to railway companies during the present session as the Governor shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.
- 63.** For a line of railway from the south bank of the St. Lawrence river, opposite or near Montreal, to the harbours of St. Andrew's, St. John and Halifax via Sherbrooke, the harbours of St. Andrew's, St. John and Halifax, Mattawamkeag, Harvey, Fredericton and Salisbury, a subsidy not exceeding eighty thousand dollars per annum for twenty years, forming in the whole, together with the subsidy authorized by the Act forty-seventh Victoria, chapter eight, for a line of railway connecting Montreal with the said harbours of St. John and Halifax by the shortest and best practicable route, which the line above described is found to be, a subsidy not exceeding two hundred and fifty thousand dollars per annum, the whole of which shall be paid in aid of the construction of such a line of railway for a period of twenty years, or a guarantee bond of a like sum for a like period as interest on the bonds of the company undertaking the work; the said subsidy to be so granted upon the terms and conditions of and payable out of the Consolidated Revenue Fund in the manner specified in the said last mentioned Act in respect of the subsidy thereby authorized in aid of the said line of railway.
- 64.** The Governor in Council may grant a further subsidy as an aid towards procuring free access as hereinafter described for the trains and traffic of the Canadian Pacific Railway Company from St. Martin's Junction, near Montreal, or from some other point on their railway to be selected by the said company, to the harbour of Quebec, in such a manner as shall be approved by the Governor in Council, that is to say: an additional subsidy not exceeding three hundred and forty thousand dollars, constituting, together with the subsidy authorized by the said last mentioned Act, to aid in procuring the extension of

the Canadian Pacific Railway to Quebec, and the subsidy also thereby authorized to aid in constructing a line connecting the Canadian Pacific Railway at the Jacques Cartier Union Junction with the North Shore Railway proper (which subsidies shall be applicable to the said first mentioned purpose) a sum not exceeding in the whole the sum of one million five hundred thousand dollars, payable out of the Consolidated Revenue Fund of Canada.

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

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

By the Act 49 Vic., cap. 10, 1886 (*Assented to 2nd June, 1886*):—

- |            |  |           |
|------------|--|-----------|
| <b>65.</b> | For a railway from a point at or near Moncton, to Buctouche, in the province of New Brunswick, thirty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .  | \$ 96,000 |
| <b>66.</b> | For a railway from Ingersoll via London to Chatham, in the province of Ontario, eighty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .   | 256,000   |
| <b>67.</b> | To the Northern and Western Railway Company, for ten miles of their railway, intervening between the termini of the portions of their railway for which subsidies are already granted, the one from Fredericton and the other from Indiantown, and an extension of two miles down to deep water at Chatham, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . . | 32,000    |
| <b>68.</b> | To the Caraquet Railway Company, for ten miles of their railway, from the end of the present subsidized portion at Lower Caraquet to Shippegan, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .   | 32,000    |
| <b>69.</b> | To the Lake Erie, Essex and Detroit River Railway Company, for thirty-seven miles of their railway, from Windsor to Leamington, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .   | 118,400   |
| <b>70.</b> | To the Thunder Bay Colonization Railway Company, for fifty-six miles of their railway, from the end of the present subsidized section to a point near Crooked Lake, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .   | 179,200   |
| <b>71.</b> | To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, on the line of the Northern Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .   | 128,000   |
| <b>72.</b> | For a railway from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .  | 57,600    |
| <b>73.</b> | For a railway from Hereford to the International Railway, in the township of Eaton, in the province of Quebec, thirty-four miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .   | 108,800   |
| <b>74.</b> | For a railway from St. Félix to Lake Maskinongé, parish of St. Gabriel in the province of Quebec, ten miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .  | 32,000    |
| <b>75.</b> | For a railway from Glenannan to Wingham, in the province of Ontario, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .  | 16,000    |

## Department of Railways and Canals.

<b>76.</b>	For a railway from a point at or near the McCann Station, on the Intercolonial Railway, to the Joggins, on Cumberland Basin, in the province of Nova Scotia, twelve miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 38,400
<b>77.</b>	For a railway from L'Assomption to L'Epiphanie, in the province of Quebec, three miles and a half, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200
<b>78.</b>	To the Montreal and Western Railway Company, for seventy miles of their railway from St. Jérôme, north-westerly towards Désert, in the province of Quebec, a subsidy of \$5,161 per mile, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, not exceeding in the whole.....	361,270
<b>79.</b>	For a railway from St. Andrew's to the Canadian Pacific Railway at or at any point east of the town of Lachute, in the county of Argenteuil, in the province of Quebec, seven miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
<b>80.</b>	To the Canada Atlantic Railway Company, for twelve miles of their railway from Clark's Island to Valleyfield, and from Lacolle, in the province of Quebec, to the international boundary, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>81.</b>	For a railway from Truro to Newport, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	156,800
<b>82.</b>	To the Quebec and Lake St. John Railway Company, for ninety-five miles of their railway, from a point fifty miles north of St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding \$1,961 per mile, nor exceeding in the whole (in addition to the subsidy granted by 45 Victoria, chapter 14, and 46 Victoria, chapter 25, of \$3,200 per mile).....	186,295
<b>83.</b>	To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>84.</b>	For the construction of wharfs and landing stages on the line of the railway from Long Sault to the foot of Lake Temiscamingue, a subsidy of.....	6,000
<b>85.</b>	To the Gananoque, Perth and James Bay Railway Company, seventeen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400
<b>86.</b>	For a railway from St. Eustache to St. Placide, county of Two Mountains, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
<b>87.</b>	For a railway from a point on the Intercolonial Railway through the Stewiacke Valley, on the line which will afford facilities of communication with the Iron Mines, Spring Side, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
<b>88.</b>	For a railway from Yamaska to the River St. Francis, in the province of Quebec, ten miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
<b>89.</b>	For a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, in the province of New Brunswick, twenty-eight miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
<b>90.</b>	For a railway from Fredericton to the village of Prince William, in the province of New Brunswick, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400

<b>91.</b> For a railway from a point on the Intercolonial Railway near Newcastle or via Douglstown to a point on the River Miramichi, opposite the town of Chatham, in the province of New Brunswick, six miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$19,200
<b>92.</b> For a railway from a point on the Canadian Pacific Railway to Eganville, in the province of Ontario, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	70,400
<b>93.</b> To the Belleville and North Hastings Railway Company, for seven miles of their railway, from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, in the province of Ontario, a subsidy (in addition to the subsidy of \$1,500 per mile granted by 48-49 Victoria, chapter 59), not exceeding \$1,700 per mile, nor exceeding in the whole.	11,900
<b>94.</b> To the Napanee, Tamworth and Quebec Railway Company, for eighteen miles of their railway from Tamworth to Tweed, in lieu of the subsidy granted by 48-49 Victoria, chapter 59, a subsidy of.	70,000
<b>95.</b> To the Albert Railway Company, for their railway from Salisbury to Hopewell, in the province of New Brunswick, which is a feeder to the Intercolonial Railway, in the form of a loan, repayable at such time and secured in such manner as the Governor in Council determines, a subsidy of.	15,000

“The subsidies hereinbefore mentioned as to be granted to the companies named for that purpose shall be granted to such companies respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies have been granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall be so constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in the agreement to be made in each case by the company to the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council, and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister: Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements, and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council may determine.”

By section 2 of this Act authority was given for the grant of a charter by the Governor in Council for the purpose of constructing a railway from Long Sault to the foot of Lake Temiscamingue.

By the Act 50-51 Vic., cap. 24, 1887 (*Assented to 23rd June, 1887*).

<b>96.</b> To the St. Catharines and Niagara Railway Company, for twelve miles of their railway from the city of St. Catharines to the bridge over the Niagara River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 38,400
<b>97.</b> To the Vaudreuil and Prescott Railway Company, for thirty miles of their railway from Vaudreuil towards Hawkesbury, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	96,000
<b>98.</b> To the Richmond Hill Junction Railway Company, for five miles of their railway from Richmond Hill Junction, on the Northern Railway of Canada, to Richmond Hill village, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	16,000



## Department of Railways and Canals.

<b>99.</b>	To the Drummond County Railway Company, for thirty miles of their railway from Drummondville towards Nicolet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>100.</b>	To the Joguins Railway Company, for one and a quarter miles of their railway extending from the southern end of the portion subsidized by the Act 49 Victoria, chapter 10, to the wharfs, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	4,000
<b>101.</b>	To the Moncton and Buctouche Railway Company, for two miles of their railway from the west end of the portion subsidized by the Act 49 Victoria, chapter 10, to Moncton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	6,400
<b>102.</b>	To the Beauharnois Junction Railway Company, for thirty miles of their railway from St. Martin's towards St. Anicet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>103.</b>	To the Harvey Branch Railway Company, for three miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600
<b>104.</b>	To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway from the town of Brantford to the village of Hagarville or the village of Waterford, or some intermediate point on the Canada Southern Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
<b>105.</b>	To the Guelph Junction Railway Company, for sixteen miles of their railway from its junction with the Canadian Pacific Railway to the town of Guelph, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
<b>106.</b>	To the Massawippi Railway Company, for ten miles of their railway from a point on the Atlantic and North-western Railway near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
<b>107.</b>	To the Napanee, Tamworth and Quebec Railway Company, for four miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to Tweed, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	12,800
<b>108.</b>	To the Dominion Lime Company, for seven miles of their railway from a point on the Quebec Central Railway, in the township of Dudswell, to the Dudswell Lime Company's quarries, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
<b>109.</b>	To the South Norfolk Railway Company, for seventeen miles of their railway from Port Rowan to the town of Simcoe, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400
<b>110.</b>	To the Jacques Cartier Union Railway Company, extending and completing their railway, a subsidy of.....	20,000
<b>111.</b>	For a line of railway from Mount Forest to Walkerton, twenty-four miles in length, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
<b>112.</b>	To the Oshawa Railway and Navigation Company, for seven miles of their railway from Port Oshawa towards Raglan, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
<b>113.</b>	To the Saguenay and Lake St. John Railway Company, for thirty miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000

<b>114.</b> To the Great Eastern Railway Company, for thirty miles of their railway from the River St. Francis to the Arthabaska Railway, at St. Grégoire station, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$96,000
<b>115.</b> To the Ontario and Pacific Railway Company, for six miles of their railway from the northern end of the portion subsidized by the Act 47 Victoria, chapter 8, to the town of Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
<b>116.</b> To the Carquet Railway Company, for seven miles of their railway from Lower Carquet to Shippegan, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding in the whole..	32,000
<b>117.</b> To the St. Lawrence and Lower Laurentian and Saguenay Railway Company, for the section of this railway from Grand Piles, on the St. Maurice River, to its junction with the Quebec and Lake St. John Railway, in lieu of the subsidy granted by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, for a line of railway from Grand Piles, on the St. Maurice River, to its junction with the Lake St. John Railway, a distance of about fifty miles, a subsidy of.....	217,600
<b>118.</b> To the St. John Valley and River du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>119.</b> To the Lake Temiscamingue Railway Company, for four short sections of railway, in all about two miles in length, to overcome the rapids of the Ottawa River, known as "La Mi-Charge," "La Cave," "Les Erables," and "La Montagne," and for the construction of wharfs and landing stages at these rapids, to connect the Canadian Pacific Railway at Mattawa with Lake Temiscamingue by steamboats, railways and other works (in lieu of a portion two miles in length, out of the eight miles of railway subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, under which about six miles of railway have already been built from the foot of Long Sault proper to the foot of Lake Temiscamingue, and in lieu also of the subsidy granted by the Act 49 Victoria, chapter 10), a subsidy of.....	12,400
<b>120.</b> To the Carillon and Grenville Railway Company, for twelve miles of their railway from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>121.</b> To the Minudie Branch Railway Company, for five and a half miles of their railway from its junction with the Joggins Railway, near the River Hébert railway bridge, to the village of Minudie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	17,600
<b>122.</b> To the Lake Temiscamingue Colonization and Railway Company, for ten and a half miles of their railway from the Long Sault to Lake Kippewa, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	33,600
<b>123.</b> To the Leamington and St. Clair Railway Company, for two miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to the village of Comber, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	6,400
<b>124.</b> To the Cumberland Railway and Coal Company for fourteen miles of their railway from a point on the Spring Hill and Parrsboro' Railway, near Spring Hill, to a point on the railway between Oxford and New Glasgow, near Oxford village, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	44,800

## Department of Railways and Canals.

<b>125.</b>	To the Montreal and Champlain Junction Railway Company, a subsidy of.....	\$ 64,000
<b>126.</b>	To the Quebec and Lake St. John Railway Company, for nine miles of their railway, the distance which the previous subsidies granted are short of covering from the city of Quebec to Lake St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	28,800
<b>127.</b>	To the Temiscouata Railway Company, for thirty miles of a branch of their railway from Edmundston towards the St. Francis River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	96,000
<b>128.</b>	To the Cornwallis Valley Railway Company, for thirteen miles of their railway from Kentville to Kingsport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	41,600
<b>129.</b>	To the Nova Scotia Central Railway Company, for thirty-four miles of their railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
<b>130.</b>	To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, a subsidy of.....	89,600
<b>131.</b>	For a railway from Woodstock towards Centreville, twenty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	64,000
<b>132.</b>	For a railway bridge over the St. Lawrence River, at Coteau Landing on the line of the Canada Atlantic Railway, a subsidy of fifteen per cent on the value of the structure, not to exceed.....	180,000
<b>133.</b>	To the Lake Erie, Essex and Detroit River Railway Company, for twenty-seven miles of their railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding.....	118,400

“For the purpose of granting corporate powers to persons or companies undertaking the construction of railways or parts of railways, mentioned in the next preceding section, for the construction of which no corporate powers exist at the time of the passing of this Act, the Governor in Council may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, as the Governor in Council shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively; the other subsidies, including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct their railway, shall be granted to such companies as shall be approved by the Governor in Council, as having established, to his satisfaction, their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized, except as regards the subsidy for the bridge over the

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

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

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

By the Act 51 Vic., cap. 3, 1888 (*Assented to 22nd May, 1888*):—

- |             |  |              |
|-------------|--|--------------|
| <b>134.</b> | To the Ottawa and Parry Sound Railway Company, for 22 miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by 49 Victoria, chapter 10, for a railway from a point on the Canadian Pacific Railway to Eganville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .   | \$ 70,400 00 |
| <b>135.</b> | To the Nova Scotia Central Railway Company, for 46 miles of their railway, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .  | 147,200 00   |
| <b>136.</b> | To the Montreal and Champlain Junction Railway Company, for 3 miles of their railway from the end of the present subsidized section, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .  | 9,600 00     |
| <b>137.</b> | To the Massawippi Junction Railway Company, for their railway from a point on the Atlantic and North-west Railway, near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of . . . . .   | 32,000 00    |
| <b>138.</b> | To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of \$31,500, to be paid out monthly as the work progresses, upon the certificate of the Chief Engineer of Government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken, and for three miles of their railway extending from a point three miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$9,600, provided that the entire work subsidized upon this<br>• railway shall be completed within four years from the passing of this Act, the subsidy granted by this Act not to exceed in the whole . . . . . | 41,100 00    |
| <b>139.</b> | To the Port Arthur, Duluth and Western Railway Company, for 84½ miles of their railway from Port Arthur towards Gun Flint Lake, in lieu of the subsidies granted by 48-49 Victoria, chapter 59, and 49 Victoria, chapter 10, for the construction of a railway from Murillo Station to Crooked Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .  | 271,200 00   |
| <b>140.</b> | To the Quebec and Lake St. John Railway Company, for 30 miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, being a transfer made at the request of the Saguenay and Lake St. John Railway Company of the subsidy granted to them by 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole  | 96,000 00    |

## Department of Railways and Canals.

<b>141.</b>	To the Temiscouata Railway Company, for 20 miles of their branch railway from Edmundston towards the St. Francis River, in the province of Quebec, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of.....	\$100,000 00
<b>142.</b>	To the Quebec Central Railway Company, for the construction and completion of a line of railway from St. Francis Station to a point on the Atlantic and North-west Railway near Moose River, 90 miles, in lieu of the balance of the subsidy, unearned, granted by 47 Victoria, chapter 8, a subsidy not exceeding \$21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of .....	288,000 00
<b>143.</b>	To the Central Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 4,052 tons of used iron rails and fastenings, loaned to the St. Martin's and Upham Railway Company, now forming part of the Central Railway, which rails and fastenings stand in the Public Accounts as an asset for.....	83,612 54
<b>144.</b>	To the Elgin, Petitcodiac and Havelock Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,201 tons of used iron rails and fastenings loaned to the Elgin Branch Railway, now forming part of the Elgin, Petitcodiac and Havelock Railway, which rails and fastenings stand in the Public Accounts as an asset for.....	44,252 82
<b>145.</b>	To the Kent Northern Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,549 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	58,334 27
<b>146.</b>	To the Halifax Cotton Company of Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 233 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	4,335 00
<b>147.</b>	To the Steel Company of Canada, in Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 597 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	11,964 66
<b>148.</b>	To the Albert Railway Company of New Brunswick, a grant as a subsidy (the section of road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 726 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	14,665 45

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

“ All the lines, for the construction of which subsidies are granted, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make ; the location also of every such line of railway shall be subject to the approval of the Governor in Council ; and also the said subsidies respectively, payable in cash, shall be payable out of the Consolidated Revenue Fund of Canada by instalments, on the completion to the satisfaction of the Minister of Railways and Canals of each section of the railway of not less than 10 miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion, of the work subsidized.”

By the Act 52 Vic., chap. 3, 1889. (*Assented to 2nd May, 1889*):—

- 150.** To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Ottawa, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . \$172,400 00
- 151.** To the Ottawa and Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of sixty-two miles, a subsidy not exceeding in the whole. . . . . 320,000 00
- 152.** To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway, from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 38,400 00
- 153.** To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the line of the Northern and Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 128,000 00
- 154.** For a railway from St. Andrew's to the Canadian Pacific Railway, at or at any point east of the town of Lachute, in the county of Argenteuil, in the province of Quebec, seven miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 22,400 00
- 155.** For a railway from Truro, or a point between Truro and Stewiacke, to Newport or to Windsor, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 156,800 00
- 156.** For a line of the Central Railway from the head of Grand Lake to the Intercolonial Railway, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 128,000 00
- 157.** To the Albert Southern Railway Company, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole. . . . . 31,771 43
- 158.** To the Baie des Chaleurs Railway Company, the balance remaining unpaid of the subsidy mentioned in the Act 49th Victoria, chapter 17, not exceeding in the whole. . . . . 244,500 00

## Department of Railways and Canals.

<b>159.</b>	To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria Branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole.....	\$145,000 00
<b>160.</b>	To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Act 45th Victoria, chapter 14, and 46th Victoria, chapter 25, not exceeding in the whole..	35,000 00
<b>161.</b>	For a railway from some point on the Joggins Railway, near the Hébert River, to Young's Mills, in the province of Nova Scotia, a distance of five miles, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole .....	16,000 00
<b>162.</b>	To the St. Clair Frontier Tunnel Company, for the construction of a tunnel under the St. Clair River, from a point at or near Sarnia, to a point at or near Port Huron, a subsidy not exceeding in the whole.....	375,000 00
<b>163.</b>	To the Pontiac and Renfrew Railway Company, for six miles of their railway from the north bank of the Ottawa River, opposite Braeside, or from Bristol Iron Mines, to the Pontiac Pacific Junction Railway, near the Quyon River, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	19,200 00
<b>164.</b>	To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the St. Charles River, to or near to Cap Tourmente, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	96,000 00
<b>165.</b>	To the Fredericton and St. Mary's Bridge Company, for a bridge over the St. John River, at Fredericton, in the province of New Brunswick, a subsidy not exceeding in the whole.....	30,000 00
<b>166.</b>	To the Napanee, Tamworth and Quebec Railway Company, for seven miles of their railway, from a point at or near Yarker to a point at or near Harrowsmith, and to a company for three miles of railway from a point at or near Harrowsmith to a point at or near Sydenham, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	32,000 00
<b>167.</b>	For a railway from a point near Sicamous, on the Canadian Pacific Railway, to a point on Lake Okanagan for fifty-one miles of such railway, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole .....	163,200 00
<b>168.</b>	To the Cornwallis Valley Railway Company, for one mile of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Kingsport, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	3,200 00
<b>169.</b>	To the Lake Témiscamingue Colonization and Railway Company, for fifteen miles of their railway, from Mattawa station on the Canadian Pacific Railway, towards the Long Sault, or from the Long Sault towards the said Mattawa station, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>170.</b>	To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of Saint-Michel des Saints, on the River Mattawin, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00

<b>171.</b> To the Kingston, Smith's Falls and Ottawa Railway Company, for twenty miles of their railway, from the city of Kingston towards Smith's Falls, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 64,000 00
<b>172.</b> To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway, from Woodstock to Hamilton, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	158,400 00
<b>173.</b> For a railway from St. Césaire to St. Paul d'Abbotsford, in the province of Quebec, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000 00
<b>174.</b> To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
<b>175.</b> To the Drummond County Railway Company, for four and one-half miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Ball's Wharf, on the St. Lawrence River, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	14,400 00
<b>176.</b> To the St. Catharines and Niagara Central Railway Company, for twenty miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Catharines, towards the city of Hamilton, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
<b>177.</b> To the Quebec and Lake St. John Railway Company, for twenty miles of their railway, from the end of the section of thirty miles from Lake St. John towards Chicoutimi, subsidized by the Act 51 Victoria, chapter 3, towards Chicoutimi, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
<b>178.</b> To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>179.</b> To the Hereford Railway Company, for fifteen miles of their railway, from Cookshire to a junction with the Quebec Central Railway at Dudswell, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>180.</b> To the Massawippi Junction Railway Company, for fifteen miles of their railway, from Ayer's Flat to Coaticook, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>181.</b> To the Brockville, Westport and Sault Ste. Marie Railway Company, for twenty miles of their railway, from a point at or near Newboro', towards Palmer's Rapids, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
<b>182.</b> To the Thousand Islands Railway Company, for four miles of their railway, from a point near the St. Lawrence River, in Gananoque village, to Gananoque Junction of the Grand Trunk Railway, and for thirteen miles of their railway, from Gananoque Junction of the Grand Trunk Railway to a junction with the Brockville, Westport and Sault Ste. Marie Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400 00



## Department of Railways and Canals.

- 183.** For a railway from Cape Tourmente towards Murray Bay, twenty miles, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . . \$64,000 00
- 184.** To the Amherstburg, Lake Shore and Blenheim Railway Company, for twenty miles of their railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . . 64,000 00

“So much of the subsidy of three thousand two hundred dollars per mile, which under the provisions of the Act forty-ninth Victoria, chapter seventeen, and of this Act, may be paid to the Baie des Chaleurs Railway Company in respect of the thirty miles of their railway, from the seventieth to the hundredth mile, eastward from Metapediac, shall be applicable to the section of the said railway, comprised between the fortieth and the seventieth mile thereof, eastward from Metapediac, instead of to the said first mentioned section of thirty miles, making six thousand four hundred dollars per mile applicable to the secondly mentioned section of thirty miles; but the foregoing provision shall be subject to the condition that the said company undertake to complete the thirty miles of their railway from the seventieth to the hundredth mile eastward from Metapediac within a reasonable time, not to exceed four years, to be fixed by Order in Council, and without any further subsidy from the Government of Canada, and that they deposit with the Minister of Railways and Canals, as security to the Crown that they will well and truly carry out their undertaking, their bonds to the amount of two hundred thousand dollars.

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

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

“And for the removal of doubts it is hereby declared and enacted that the provision in the Act passed in the fifty-first year of Her Majesty’s reign, and chaptered three, relating to the Pontiac Pacific Junction Railway Company, extended and extends the several subsidies in aid of the said company for four years from the passing of the said Act, that is to say, from the twenty-second day of May, one thousand eight hundred and eighty-eight.”

By the Special Act, 52 Vic., cap. 5, 1889 (*Assented to 2nd May, 1889*):—

- 185.** In order to enable the Qu’Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company to complete their railway from Regina to some point on the South Saskatchewan River at or near Saskatoon, and thence northward to Prince Albert, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails,

for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum in manner following, that is to say :—the sum of fifty thousand dollars to be paid annually on the construction of the railway to a point at or near Saskatoon, such payment to be computed from the date of the completion of the railway to such point ; and the remaining thirty thousand dollars annually on the extension of the railway to Prince Albert, such payment to be computed from the date of such last mentioned completion : Provided that if the second portion of the said railway is not built and operated to Prince Albert within two years after the completion of the railway to the South Saskatchewan as aforesaid, the payment of fifty thousand dollars shall cease until the whole railway is finished to Prince Albert.

By the Act 53 Vic., cap. 2, 1890 (*Assented to 16th May, 1890*) :—

<b>186.</b>	To the Montreal and Ottawa Railway Company, for thirty miles of their railway, from the western end of the thirty-six miles subsidized by the Act 50-51 Victoria, chapter 24, towards Ottawa, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	\$ 96,000
<b>187.</b>	To the Waterloo Junction Railway Company, for eleven miles of their railway, from Waterloo to Elmira, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	35,200
<b>188.</b>	To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Acts 45 Victoria, chapter 14, and 46 Victoria, chapter 25, not exceeding in the whole...	600
<b>189.</b>	For a railway from Woodstock via London to Chatham, in the province of Ontario, thirty miles in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Ingersoll via London to Chatham, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
<b>190.</b>	To the St. Catharines and Niagara Railway Company, for fourteen miles of their railway, from the end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Hamilton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	44,800
<b>191.</b>	To a railway from Ottawa to Morrisburg, fifty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	166,400
<b>192.</b>	To the Erie and Huron Railway Company, for twenty-two miles of their railway from Petrolea via Oil Springs to Dresden, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>193.</b>	To the Brockville, Westport and Sault Ste. Marie Railway Company, for a railway from Brockville to Westport, the balance remaining unpaid of the subsidy granted by the Act 48-49 Victoria, chapter 59, not exceeding in the whole.....	83,000
<b>194.</b>	To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>195.</b>	To the Port Arthur, Duluth and Western Railway Company, for five miles of their railway, being a branch of the main line of railway to the Kakabeka Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000
<b>196.</b>	To the Lake Erie and Detroit River Railway Company, for fifty miles of their railway, on a line to be fixed by the Governor in Council, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	160,000

## Department of Railways and Canals.

<b>197.</b> To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway, from Bobcaygeon to the Midland Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 51,200
<b>198.</b> To the Kingston, Smith's Falls and Ottawa Railway Company, for thirty-six miles of their Railway, from the north-east end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Smith's Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	115,200
<b>199.</b> To the Ottawa and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>200.</b> To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway, from Belleville to Tweed and thence to Bridgewater, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>201.</b> To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>202.</b> To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200
<b>203.</b> To the Woodstock and Centreville Railway Company, for six miles of their railway, from the western end of the twenty miles subsidized by the Act 50-51 Vic., chap. 24, to the International boundary between the province of New Brunswick and the state of Maine, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
<b>204.</b> For a railway from a point at or near Fredericton, via Oromocto and Gagetown, to a point on the New Brunswick Railway west of Westfield station, for thirty miles thereof, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>205.</b> To the Central Railway Company of New Brunswick, for four and a half miles of their railway, the distance which the previous subsidy granted is short of covering, from the head of Grand Lake to the Intercolonial Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	14,400
<b>206.</b> To the Montreal and Western Railway Company, for seventy miles of their railway, from St. Jérôme, north-westerly towards Désert, in the province of Quebec, in lieu of the subsidy granted by the Act 49 Vic., chap. 10, a subsidy not exceeding \$5,161 per mile, nor exceeding in the whole.....	361,270

" Provided, that the subsidy hereby granted to the Montreal and Western Company may be paid by instalments on the completion of each section of the railway as follows, that is to say :—

SECTIONS.	Approximate length in miles.
St. Jérôme to Shawbridge.....	8
Shawbridge to St. Sauveur.....	4
St. Sauveur to Ste. Adèle.....	6
Ste. Adèle to Lac à la Fourche.....	6
Lac à la Fourche to Ste. Agathe.....	6½
Ste. Agathe to St. Faustin.....	14
St. Faustin to St. Jovite.....	7½
St. Jovite to Summit Lake.....	8
Summit Lake to La Chute aux Iroquois.....	7
La Chute aux Iroquois towards Désert.....	3

“Such instalments to be proportionate to the value of the portions so completed in comparison with that of the whole work undertaken, to be established as aforesaid.”

<b>207.</b>	For seventy-five miles of the railway from Shelburne, in the county of Shelburne, and from Liverpool, in the county of Queen's towards Annapolis, in the province of Nova Scotia, to be so contracted for as to secure the construction to both Shelburne and Liverpool, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 240,000
<b>208.</b>	To the Inverness and Richmond Railway Company, for fifty miles of their railway from Port Hawkesbury to Broadcove, a subsidy not exceeding \$1,000 per mile, nor exceeding in the whole....	50,000
<b>209.</b>	To the International Railway Company, for a railway from Sherbrooke to the international boundary, the balance remaining unpaid of the subsidy granted by the Act 46 Vic., chapter 25, not exceeding in the whole.....	3,840
<b>210.</b>	For completing the Montreal and Sorel Railway from St. Lambert to Sorel.....	40,000
<b>211.</b>	To the Pontiac Pacific Junction Railway Company, for seven and a half miles of their railway, from Hull to Aylmer, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	24,000
<b>212.</b>	To the Montreal and Lake Maskinongé Railway Company, for three and a half miles of their railway, the distance which the subsidy granted by the Act 49 Vic., chapter 10, is short of covering from St. Félix to Lake Maskinongé, in the parish of St. Gabriel, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	10,200
<b>213.</b>	To the Great Eastern Railway Company, for a bridge over the Nicolet River, and also a bridge on the St. Francis River, a subsidy of 15 per cent on the value of the structure, not to exceed.....	37,500
<b>214.</b>	To the Drummond County Railway Company, for twenty-four miles of their railway, from Drummondville to Ste. Rosalie, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
<b>215.</b>	To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
<b>216.</b>	To the Lake Temiscamingue Colonization Railway Company, for twenty miles of their railway, from the northern end of the fifteen miles subsidized by the Act 52 Vic., chapter 3, to the Long Sault, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
<b>217.</b>	To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from the northern end of the 15 miles subsidized by the Act 52 Victoria, chapter 3, towards the parish of St. Michel des Saints, on the River Mattawa, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
<b>218.</b>	To the St. Lawrence and Adirondack Railway Company, for eighteen miles of their railway, from Valleyfield to Huntingdon, on the Montreal and Champlain Junction Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	57,600
<b>219.</b>	To the Quebec Central Railway Company, for ninety miles of their railway, from St. Francis Station, on the Quebec Central Railway, to a point on the Atlantic and North-western Railway,	

## Department of Railways and Canals.

	near Moose River, or from a point on the Quebec Central Railway between the Chaudière River and Tring Station, to a point on the International Railway at or near Lake Megantic, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding \$21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period, as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of.....	\$288,000
<b>220.</b>	To the Quebec and Lake St. John Railway Company, for a railway bridge over the St. Charles River, to give access to the city of Quebec, a subsidy not to exceed in the whole \$30,000; also for twelve miles of their railway from Lorette via Charlesbourg to Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$38,400.....	68,400
<b>221.</b>	For a railway from Summerside to Richmond Bay, in the province of Prince Edward Island, three miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600
<b>222.</b>	To the Columbia and Kootenay Railway Company, for thirty-five miles of their railway, from the outlet of Kootenay Lake to a point on the Columbia River as near as practicable to the junction of the Kootenay and Columbia Rivers, a subsidy not exceeding \$3,200 per mile, nor to exceed in the whole.....	112,000
<b>223.</b>	For a railway from a point on the Intercolonial Railway through the Stewiacke Valley on a line which will afford facilities of communication with the Iron Mines, Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
<b>224.</b>	For a railway from Fredericton to the village of Prince William in the province of New Brunswick, twenty-two miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>225.</b>	To the St. John Valley and Rivière du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>226.</b>	To the Témiscouata Railway Company, for sixteen miles of their railway, from the west end of the twenty miles of their branch railway from Edmundston, subsidized by the Act 51 Victoria, chapter 3, towards the St. Francis River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
<b>227.</b>	For a railway from the north end of the fourteen miles for which a subsidy was granted by the Act 50 and 51 Victoria, chapter 24, to the Tobique Valley Railway Company, from Perth Centre towards Plaister Rock Island, eleven miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	35,200
<b>228.</b>	To the Orford Mountain Railway Company, for thirty-one miles of their railway, between Eastman and Kingsbury, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	99,200
<b>229.</b>	For a railway from Lachine Bank, on a line of the Grand Trunk Railway, to a point at or near Rivière des Prairies, a distance of fifteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000

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

including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct its railway, shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council,—except the Erie and Huron Railway, which shall be completed within two years from the first day of July next. And they shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specifying an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make. The location, also, of every such line of railway shall be subject to the approval of the Governor in Council. And all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as regards the Erie and Huron Railway Company, upon which payment shall be made only upon the completion of the work—except, also as regards the subsidies to the Inverness and Richmond Railway, which shall be paid on the completion of each ten mile section, in accordance, as nearly as practicable, with the agreement between the company and the municipality of Inverness, and with section four of the Act of the Legislature of Nova Scotia, 1890, intituled: An Act to enable the county of Inverness to borrow money—except, also, as regards the subsidies to the Great Eastern Railway Company for bridges over the Nicolet and St. Francis Rivers, and to the Quebec and Lake St. John Railway for the bridge over the St. Charles River, upon which shall be paid fifteen per cent of the value of work done, on monthly progress estimates certified by the Chief Engineer and upon the approval of the Minister of Railways and Canals—and except also the subsidy granted to the Quebec Central Railway Company, the first annual payment upon which shall be made at the end of twelve months from the date of the Chief Engineer's certificate of the completion of the work, and each subsequent payment at the end of each twelve months thereafter, for the term of twenty years.

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

By the special Act 53 Vic., ch. 5, 1890 (*Assented to 16th May, 1890*):—

**230.** In order to enable the Calgary and Edmonton Railway Company to construct so much of their railway as reaches from a point on the line of the Canadian Pacific Railway Company within the town of Calgary to a point on the North Saskatchewan River near Edmonton, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum, in manner following, that is to say: the sum of eighty thousand dollars to be paid annually on the construction of the railway from Calgary to a point on the North Saskatchewan River near Edmonton,—such payment to be computed from the date of the completion of the railway between such points: Provided that the Governor General in Council may order such sums to be paid in semi-annual instalments, and may permit the company to assign the same by way of security for any bonds or securities which may be issued by the company in respect of the company's undertaking.

By 54-55 Victoria, ch. 8, 1891 (*Assented to 30th Sept., 1891*):—

**231.** To the Great Northern Railway Company, for a railway from a point at or near New Glasgow or St. Lin to or near to Montcalm, in the province of Quebec, eighteen miles, the balance

## Department of Railways and Canals.

	remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Act forty-ninth Victoria, chapter ten, nor exceeding in the whole.....	\$ 28,100 00
<b>232.</b>	To the Quebec and Lake St. John Railway Company, for the railway bridge over the St. Charles River to give access to the city of Quebec, the difference between the amount already paid to the company and the sum of \$30,000 mentioned as not to be exceeded by the Act fifty-third Victoria, chapter two, a subsidy not exceeding.....	5,250 00
<b>233.</b>	To the Oshawa Railway Company, for seven miles of their railway from Port Oshawa towards Raglan, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400 00
<b>234.</b>	To the St. Lawrence, Lower Laurentian and Saguenay Railway Company, for the section of their railway from Grand Piles, on the St. Maurice River to its junction with the Quebec and Lake St. John Railway, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	92,784 00
<b>235.</b>	To the Great Eastern Railway Company, for thirty-miles of their railway, from the River St. Francis to the Arthabaska Railway at St. Grégoire station, the balance remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	79,700 00
<b>236.</b>	To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway from Woodstock to Hamilton, in the province of Ontario, in lieu of the subsidy for a like amount granted by the Act fifty-second Victoria, chapter three, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	158,400 00
<b>237.</b>	To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	46,040 00
<b>238.</b>	To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding \$6,400 per mile, nor exceeding in the whole....	89,600 00
<b>239.</b>	To the Kingston, Smith's Falls and Ottawa Railway Company for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed \$179,200, granted by the Acts fifty-second Victoria, chapter three, and fifty-third Victoria, chapter two, a subsidy not exceeding \$12,534 per annum, to be paid in semi-annual instalments of \$6,267 each, for twenty years, which represents a grant in cash of.....	179,200 00

“ Provided, that upon the completion of twenty-eight miles of the said railway a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole fifty-six miles ; Provided also, that the company may deposit with the Minister of Finance and Receiver General a sum not exceeding \$1,170,000, in consideration whereof there shall be paid to the company, for twenty years, a semi-annual annuity calculated on a basis of three and one-half per cent on the amount so deposited ; Provided further, that the Governor in Council may permit the company to assign the said subsidy and annuity to trustees by way of security for any bonds or securities which may be issued by the company in respect of their undertaking.”

**240.** To the Brockville, Westport and Sault Ste. Marie Railway Company, for twenty miles of their railway, from a point at or near Newboro' towards Palmer's Rapids, in the province of Ontario, in lieu of a subsidy for a like amount granted by the Act fifty-second Victoria, chapter three, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$64,000 00

“ Provided that the subsidy hereby granted to the Brockville, Westport and Sult Ste. Marie Railway Company may be paid by instalments, on the completion of each section of the railway as follows, that is to say :—

Sections.	Length in miles.
From, at or near Newboro' to Westport.....	4
From Westport towards Palmers Rapids.....	16

“ The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively ; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council ; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make ; the location, also of every such line of railway, shall be subject to the approval of the Governor in Council ; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, the first semi-annual payment upon which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of twenty-eight miles of the railway, and each subsequent payment at the end of each six months thereafter, for the term of twenty years,—except also as to the Quebec and Lake St. John Railway Company, the subsidy to which shall be paid upon the completion of the work,—except also as to the Brockville, Westport and Sault Ste. Marie Railway Company, the subsidy to which shall be paid as follows : on the completion of that portion of the said road from, at or near Newboro' to Westport, a distance of four miles, the sum of twelve thousand eight hundred dollars, and on the completion of the remaining sixteen miles from Westport towards Palmer's Rapids, the sum of fifty-one thousand two hundred dollars.

“ Within one month after the commencement of each session of Parliament, whilst any of the said moneys are being paid out, there shall be laid before Parliament a statement showing all payments of such moneys during the then next preceding year, the names of the respective persons to whom such payments have been made, and the amounts paid them respectively, together with the engineer's report upon which pay-



## Department of Railways and Canals.

ments have been recommended, and copies of all contracts between the Government and the company under which the said subsidies are authorized to be paid.

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

By the Act 55-56 Victoria, chap. 5, 1892 (*Assented to 9th July, 1892*) :—

<b>241.</b>	To the Lake Erie and Detroit River Railway Company, for fifty-eight miles of their railway from a point at or near Cedar Creek to the town of Ridgetown, in lieu of the subsidies granted to the Lake Erie and Detroit River Railway Company by the Act 53 Victoria, chapter 2, and to the Amherstburg, Lake Shore and Blenheim Railway Company by the Act 52 Victoria, ch. 3.	\$224,000 00
<b>242.</b>	To the Ottawa, Arnprior and Parry Sound Railway Company, for fifty-five miles of their railway from Barry's Bay towards the Northern Pacific Junction Railway, a subsidy not exceeding \$6,400 per mile on the first twenty-seven and a half miles out from Barry's Bay, and not exceeding \$3,200 per mile on the second twenty-seven and a half miles, nor exceeding in the whole. . . . .	264,000 00
<b>243.</b>	To the Canadian Pacific Railway Company or to the Columbia and Kootenay Railway and Navigation Company, for a railway from a point on the Canadian Pacific Railway at or near Revelstoke to the head of Arrow Lake, for twenty-five miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	80,000 00
<b>244.</b>	To the Tobique Valley Railway Company, for a railway from the north end of the eleven miles for which a subsidy was granted by the Act 53 Victoria, chapter 2, to Plaister Rock Island, for 3 miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	9,600 00
<b>245.</b>	To the Monfort Colonization Railway Company, for twenty-one miles of their railway from Lachute, St. Jérôme or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Monfort and westward, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	67,200 00
<b>246.</b>	To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway from the Belmont iron mines to the Canadian Pacific Railway and the Central Ontario Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	32,000 00
<b>247.</b>	To the Montreal and Champlain Junction Railway Company, the balance remaining unpaid of the subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, a subsidy of. . . . .	15,100 00
<b>248.</b>	To the Buctouche and Moncton Railway Company, for thirty-two miles of their railway from Moncton to Buctouche, the balance remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Acts 49 Victoria, chapter 10, and 50-51 Victoria, chapter 24, not exceeding in the whole. . . . .	35,480 00
<b>249.</b>	To the Cobourg, Northumberland and Pacific Railway Company, for nineteen miles of their railway from Cobourg to the Ontario and Quebec Railway (in addition to the subsidy granted by the Act 53 Victoria, chapter 2), a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	60,800 00

<b>250.</b>	For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien in the said county, for twelve miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	\$ 38,400 00
<b>251.</b>	To the Inverness and Richmond Railway Company (or any other company undertaking the work), for twenty-five miles of their railway from a point on the Cape Breton Railway, at or near Orangedale, to Broadcove, a subsidy not exceeding \$3,200 per mile, in lieu of the subsidy of \$50,000 granted to the said railway company by 53 Victoria, chapter 2, and on the same conditions, not exceeding in the whole . . . . .	80,000 00
<b>252.</b>	To the Nicola Valley Railway Company, for twenty-five miles of their railway from a point on the Canadian Pacific Railway at or near Spence's Bridge towards Nicola Lake . . . . .	80,000 00
<b>253.</b>	To the Lotbinière and Megantic Railway Company, for fifteen miles of their railway from a point at or near St. Jean Deschailons towards Glen Lloyd, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	48,000 00
<b>254.</b>	To the Stewiacke and Lansdowne Railway Company, for a railway from a point on the Intercolonial Railway, through the Stewiacke Valley, on a line which will afford facilities of communication with the iron mines at Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	80,000 00
<b>255.</b>	To the Philipsburg Junction Railway and Quarry Company, for six and seven-hundredths miles of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	21,600 00
<b>256.</b>	To the Kingston, Napanee and Western Railway Company, for three miles of their railway from a point at or near Harrowsmith to a point at or near Sydenham, in lieu of the subsidy granted for this section of road by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	9,600 00
<b>257.</b>	For a railway from Cape Tourmente towards Murray Bay, in the province of Quebec, twenty miles, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	64,000 00
<b>258.</b>	To the Stewiacke and Lansdowne Railway Company, for a railway from Truro, or a point between Truro and Stewiacke, to Newport or to Windsor, in the province of Nova Scotia, for forty-nine miles of such railway, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	156,800 00
<b>259.</b>	To the Restigouche and Victoria Railway Company, for fifteen miles of their railway from Campbelton towards Grand Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	48,000 00
<b>260.</b>	For a railway from St. Johns to Ste. Rosalie, thirty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	102,400 00
<b>261.</b>	For a railway from St. Placide to St. Andrew's, eight miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	25,600 00
<b>262.</b>	For a railway to complete the connection between Sydney and Louisburg, in the county of Cape Breton, for twenty-eight miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	89,600 00

## Department of Railways and Canals.

- 263.** To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway from Belleville to Tweed and thence to Bridgewater, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . \$ 96,000 00
- 264.** To the Kingston, Smith's Falls and Ottawa Railway Company, for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed \$179,200, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of such subsidies so granted, to be paid in semi-annual instalments for such period not exceeding twenty-one years, as the company may elect, which represents a grant in cash of. . . . . 179,200 00

“ Provided, that upon the completion of twenty-eight miles of the said railway a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole fifty-six miles : Provided also, that the company may deposit with the Minister of Finance and Receiver General, a sum not exceeding \$1,170,000, in consideration whereof there shall be paid to the company for such period not exceeding twenty years as the company may elect, a semi-annual annuity calculated on a basis of three and a half per cent on the amount so deposited. Provided further, that the Governor in Council may permit the company to assign the said subsidy and annuity to trustees by way of security for any bonds or securities which may be issued by the company in respect of their undertaking.”

**265.** To the St. Catharines and Niagara Central Railway Company, for thirty-four miles of their railway from the city of St. Catharines to the city of Hamilton, in lieu of the subsidies, not to exceed \$108,000, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of the said subsidies, to be paid in semi-annual instalments for such period, not exceeding twenty years, as the company may elect, representing a grant in cash of \$108,000 : Provided that, upon the completion of ten miles of said railway, a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole thirty-four miles. Provided also, that the company may deposit with the Minister of Finance and Receiver General a sum not exceeding \$400,000, in consideration whereof there shall be paid by the Government to the company, for such period not exceeding twenty years, as the company may elect, a semi-annual annuity, calculated on a basis of three and a half per cent on the amount so deposited, or a guarantee of a like sum, as interest on the bonds of the company : Provided further, that the company, with the approval of the Governor in Council, may assign the said subsidy and annuity to trustees by way of security for principal, or interest of any bonds or securities which may be issued by the company in respect of their undertaking, and the subsidy last above mentioned to the St. Catharines and Niagara Central Railway Company shall be paid in instalments, the first semi-annual payment upon which shall be made at the end of the six months from the date of the Chief Engineer's certificate of the completion of the first ten miles of railway, and each subsequent payment at the end of six months thereafter, for the term of twenty years or less. It is a condition of this subsidy that the sum not exceeding \$400,000 above mentioned shall be deposited with the Finance Minister before January 1st, 1893.

- 266.** To the Woodstock and Centreville Railway Company, for a railway from Woodstock towards Centreville, twenty miles, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . \$64,000 00
- 267.** To the Brockville, Westport and Sault Ste. Marie Railway Company, for the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding \$3,200 per mile, and also for the balance remaining unpaid of the subsidy granted by the Act 53 Victoria, chapter 2, nor exceeding in the whole. . . . . 96,800 00
- 268.** To the New Glasgow Iron, Coal and Railway Company, for a railway from Eureka Junction on the Intercolonial Railway to a point at or near Sunnybrae, including a branch line to the charcoal iron furnace at Bridgeville, for twelve and a half miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 40,000 00
- 269.** To the Thousand Island Railway Company, for an extension of their railway to connect with the Brockville, Westport and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, and an extension across the mouth of the Gananoque River, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole. . . . . 44,000 00

Payable, \$14,000 on the completion of the last named or southern extension, and the balance of said subsidy, being \$30,000, on the completion of the first named or northern extension of their railway.
- 270.** To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . \$96,000 00
- 271.** To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway from the end of the line subsidized by the Act 53 Victoria, chapter 2, at the junction with the Midland Railway, to Pontypool, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 51,200 00
- 272.** For seventy-five miles of the railway from Sand Point, Shelburne Harbour, in Nova Scotia, to Annapolis Royal, in the county of Annapolis and to a junction at or near New Germany on the Nova Scotia Central Railway, with a view to future construction to Liverpool, in lieu of the subsidy of a like amount granted by the Act 53 Victoria, chapter 2, for the same length of railway from Shelburne and from Liverpool, towards Annapolis, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 240,000 00
- 273.** To the Kingston, Napanee and Western Railway Company, for twenty miles of their railway, being extensions or branches in the counties of Peterborough, Hastings, Addington, Frontenac or Leeds, towards iron deposits, a subsidy not exceeding \$3,200 per mile, payable in instalments regulated by the length of each of the said extensions, additions or branches, the subsidy not exceeding in the whole. . . . . 64,000 00
- 274.** To the St. John Valley and Rivière du Loup Railway Company, for ten miles of their railway from the north end of the line subsidized by the Act 53 Victoria, chapter 2, towards the town of Woodstock, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . . 48,000 00

## Department of Railways and Canals

<b>275.</b>	To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 96,000 00
<b>276.</b>	To the Ottawa, Arnprior and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00
<b>277.</b>	To the Ottawa, Arnprior and Parry Sound Railway Company, for twenty-two miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400 00
<b>278.</b>	To the Lake Témiscamingue Colonization Railway Company, for thirty-five miles of their railway from Mattawa to the Long Sault, in lieu of the subsidies granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	112,000 00
<b>279.</b>	To the Témiscouata Railway Company, for twelve miles of their railway from the north end of the section of the St. François Branch subsidized by the Act 51 Victoria, chapter 3, being the first twelve miles on the section subsidized by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$1,800 per mile, in addition to the subsidy already granted, and not exceeding in the whole.....	21,600 00
<b>280.</b>	To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway from Port Burwell to Tilsonburg, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200 00
<b>281.</b>	To the Woodstock and Centreville Railway Company, for six miles of their railway from the west end of their twenty miles subsidized by the Act 50-51 Victoria, chapter 24, to the international boundary between the province of New Brunswick and the state of Maine, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200 00
<b>282.</b>	To the Lake Témiscamingue Colonization Railway Company, for 15 miles of their railway from the Long Sault to the crossing of the Kippewa River, a subsidy not exceeding \$3,200 per mile—and a subsidy of fifteen per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not exceeding \$15,000,—nor exceeding in the whole.....	63,000 00
<b>283.</b>	To the Goderich and Wingham Railway Company, for thirty-one miles of their railway from Goderich to Wingham, via Port Albert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	99,200 00
<b>284.</b>	To the Joliette and St. Jean de Matha Railway Company, for eight miles of their railway from St. Félix de Valois to St. Jean de Matha, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600 00
<b>285.</b>	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>286.</b>	To the Nipissing and James Bay Railway Company, for twenty-five miles of their railway from, at or near North Bay station on	

	the Canadian Pacific Railway towards James Bay, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 80,000 00
<b>287.</b>	For a railway from a point on the Intercolonial Railway between Ste. Flavie and Little Métis station to Matane, for fifty miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	160,000 00
<b>288.</b>	To the Ontario and Pacific Railway Company, for fifty-three and eighty-seven hundredths miles of their railway from Cornwall to Ottawa, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	172,400 00
<b>289.</b>	For a railway from a point on the line of the Canadian Pacific Railway on the Isle Jésus, in the county of Laval, towards St. Eustache, for twelve miles of such railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, to the Carillon and Grenville Railway Company, for twelve miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400 00
<b>290.</b>	For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for eighteen miles of such railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600 00
<b>291.</b>	To the Port Arthur, Duluth and Western Railway Company, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding, with the amount already paid, \$3,200 per mile, nor exceeding in the whole.....	114,125 00
<b>292.</b>	To the Drummond County Railway Company for four and six-tenths miles of their railway from Bull's Wharf, on the St. Lawrence River, near Nicolet, to Ste. Rosalie Junction, an excess of distance by the constructed line over the subsidies heretofore voted for a railway between the said points, \$3,200 per mile, not exceeding in the whole.....	14,720 00
<b>293.</b>	To the St. Lawrence and Adirondack Railway Company, for five and forty-two hundredths miles of their railway, from Huntingdon towards the international boundary, which, with the distance between Valleyfield and Huntingdon, twelve and fifty-eight hundredths miles, makes up the distance of eighteen miles named in the 53 Vic., chap. 2, granting a subsidy to this company, and for five and forty-hundredths miles from the east end of the eighteen miles referred to to the international boundary, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,024 00

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively ; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively ; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make ; the location also of every such line of railway shall be subject to the approval of the Governor in Council ; and all the said subsidies respectively shall be payable out of the Consolidated

## Department of Railways and Canals.

Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, and the subsidy granted to the St. Catharines and Niagara Central Railway Company, the first semi-annual payments upon both of which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of their railways respectively, and each subsequent payment at the end of each six months thereafter, for the term of twenty years or less.

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

- 294.** Notwithstanding the expiration of the time limited by the Act 47 Victoria, chapter 8, and by the contract entered into with the Pontiac Pacific Junction Railway Company, the Governor in council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act.
- 295.** Notwithstanding the expiration of the time limited by the Act 52 Victoria, chapter 3, and by the contract entered into with the Quebec and Lake St. John Railway Company, the Governor in Council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act; and notwithstanding anything contained in the Act 50-51 Victoria, chapter 24, the Governor in Council may also pay to the said company the balance remaining unpaid of the subsidy granted to the company by the said Act, amounting to \$12,800, on the four miles of their road from the north end of the main line subsidized towards Roberval.

By the Act 56 Vic., chap. 2, 1893 (*Assented to 1st April, 1893*):—

- |   |              |
|---|--------------|
| <b>296.</b> To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | \$ 64,000 00 |
| <b>297.</b> To the United Counties Railway Company, for thirty-two miles of their railway, from a point at or near the town of Iberville to St. Hyacinthe, and thence towards Sorel, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, for a railway from St. Johns to Ste. Rosalie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 102,400 00   |
| <b>298.</b> To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway, divided into two sections: first, from the Belmont Iron Mines to Marmora village; second, from Marmora village to the junction with the Ontario Central Railway, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....                 | 32,000 00    |
| <b>299.</b> To the Central Ontario Railway Company, for twenty miles of their railway, from Coe Hill or Gilmore, or some point between  |              |

	Coe Hill and Gilmore, to Bancroft, via L'Amable, or as near thereto as practicable, in lieu of the subsidy granted by the Act 48-49 Victoria, chapter 59, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 64,000 00
<b>300.</b>	To the Quebec and Lake St. John Railway Company, for thirty miles of their railway, from Lake St. John towards Chicoutimi, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding in the whole.....	81,040 00
<b>301.</b>	To the Irondale, Bancroft and Ottawa Railway Company, for fifty miles of their railway, from the Victoria branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47 Victoria, chapter 8, and again granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.....	145,000 00
<b>302.</b>	To the Beauharnois Junction Railway Company, for thirty miles of their railway, from Ste. Martine towards St. Anicet, the balance remaining unpaid of the subsidy granted by the Act 50-51 Victoria, chapter 24, not exceeding in the whole.....	3,500 00
<b>303.</b>	To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200 00
<b>304.</b>	To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the River St. Charles, to or near to Cape Tourmente, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole..	30,400 00
<b>305.</b>	To the Ottawa and Gatineau Valley Railway Company, for sixty-two miles of their railway, from Hull station towards Le Désert, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.....	89,248 00
<b>306.</b>	To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara, or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>307.</b>	To the Nova Scotia Central Railway Company (or to such person or persons or company as in the opinion of the Minister or acting Minister of Justice are entitled to the same) for eighty miles of their railway, from Lunenburg, on the east coast of Nova Scotia, westward to a point in the district of New Germany, together with a spur about three-fourths mile long to Bridgewater railway wharf, and from a point thirty-three and a half miles from Lunenburg and running to Middleton on the Windsor and Annapolis Railway, of unpaid subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, an amount not exceeding in the whole.....	4,500 00
<b>308.</b>	To the Great Northern Railway Company, for eighteen miles of their railway, from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 54-55 Victoria, chapter 8, not exceeding in the whole.....	25,600 00
<b>309.</b>	To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific	



## Department of Railways and Canals.

<b>310.</b> To the Montfort Colonization Railway Company, for twenty-one miles of their three-feet gauge railway from Lachute, St. Jérôme, or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Montfort and westward, in lieu of the subsidy granted by the Act 53 Victoria, chap. 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	\$ 48,000 00
<b>311.</b> To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of St. Michel des Saints, on the river Mattawa, in the province of Quebec, and for fifteen miles of their railway from the north end of the fifteen miles above referred to, towards the parish of St. Michel des Saints on the river Mattawa, in the province of Quebec, in lieu of the subsidies granted by the Acts 52 Victoria, chap. 3, and 53 Victoria, chap. 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	67,200 00
<b>312.</b> To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the Northern Pacific Junction Railway, in the province of Ontario, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole. . . . .	96,000 00
<b>313.</b> To the Jacques Cartier Union Railway Company, for extending and completing their railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy of. . . . .	97,600 00
<b>314.</b> To the Oshawa Railway Company, for seven miles of their railway and branches as follows: from Port Oshawa to a point at or near Edmondson's Falls mill site, near Mill Street, in the town of Oshawa (this portion being known as the "Lake" section of the said railway); thence to a point at or near the town hall in the town of Oshawa, and thence to the Oshawa station of the Grand Trunk Railway Company of Canada (this portion being known as the "Town" or "Northern" section of the said railway)—in lieu of the subsidy granted by the Act 54-55 Victoria, chapter 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	20,000 00
	22,400 00

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

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

"All the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed

in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as follows:—

“(a.) The subsidy to the Ontario, Belmont and Ottawa Railway Company, which shall be paid as follows: on the completion of the first section, an instalment proportionate to the value of the said section in comparison with that of the ten miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy on the completion of the second section;

“(b.) The subsidy to the Oshawa Railway Company, which shall be paid as follows: on the completion of the “Town” or “Northern” section, an instalment proportionate to the value of the said section in comparison with that of the seven miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy, on the completion of the “Lake” section of the said railway.”

By the Act 57-58 Vic., cap. 4, 1894. (*Assented to, 23rd July, 1894*):—

<b>315.</b>	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	\$ 48,000
<b>316.</b>	To the Brockville, Westport and Sault Ste. Marie Railway, the balance remaining unpaid of the subsidy granted by chapter 3 of 1889, not exceeding \$3,200 per mile, and also the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, which was re-granted by chapter 5 of 1892; the whole not exceeding . . . . .	86,800
<b>317.</b>	To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway, from Port Burwell to Tilsonburg, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . .	51,200
<b>318.</b>	To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway, from the town of Brantford to the village of Hagarville or the village of Waterford, or some intermediate point on the Canada Southern Railway, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole . . . .	4,790
<b>319.</b>	To the St. Catharines and Niagara Central Railway Company, for 34 miles of their railway from the city of St. Catharines to the city of Hamilton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	108,800
<b>320.</b>	To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887; and for 30 miles of their railway from the western end of the 30 miles first mentioned towards Ottawa, the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, not exceeding \$3,200 per mile; the whole not exceeding. . . . .	118,400
<b>321.</b>	Notwithstanding the expiration of the time limited by chapter 2 of 1890, and by the contract entered into with the Quebec Central Railway Company, and notwithstanding anything otherwise in the said chapter 2 contained, the Governor in Council may pay the subsidy granted by the said chapter to the said company at the present worth of the twenty annual payments mentioned in the said chapter (interest computed at four per cent), for and upon the completion of its railway extending from a point between the Chaudière River and Tring Station to a point on the International Railway at or near Lake Megantic, and upon the inspection and acceptance of the same by the Chief Engineer of Railways and Canals, the sum in all of. . . . .	288,000

## Department of Railways and Canals.

<b>322.</b>	To the Philipsburg Junction Railway and Quarry Company, for $\frac{5}{8}$ mile of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi and a branch to Missisquoi Bay, the balance remaining unpaid of the subsidy granted by chapter 5 of 1892, not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 2,912
<b>323.</b>	To the Joliette and St. Jean de Matha Railway Company, for 8 miles of their railway from St. Félix de Valois to St. Jean de Matha, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	23,600
<b>324.</b>	To the Lake Temiscamingue Colonization Railway Company, for their railway from Mattawa to the foot of the Kippewa Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$160,000,—also 15 per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not to exceed \$15,000 in all, in lieu of the subsidies granted by chapter 5 of 1892,—also the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, for their railway from Long Sault to Lake Kippewa, a subsidy not exceeding \$3,200 per mile of railway and 15 per cent on the value of the bridges,—also, a sum of \$1,750 additional per mile on their said railway from Mattawa to the foot of the Kippewa Lake; the whole not exceeding.....	274,940
<b>325.</b>	For a railway from St. Placide to St. Andrews, 8 miles, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole .....	25,600
<b>326.</b>	For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for 18 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
<b>327.</b>	For a railway from a point on the line of the Canadian Pacific Railway on Isle Jésus, in the county of Laval, towards St. Eustache, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, to the Carillon and Grenville Railway Company, for 12 miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>328.</b>	For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien, in the said county, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole .....	38,400
<b>329.</b>	To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of \$31,500, to be paid out monthly as the work progresses, upon the certificate of the chief engineer of government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken; and for 3 miles of their railway extending from a point 3 miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$9,600, in lieu of the subsidy granted by chapter 3 of 1888; provided that the entire work subsidized upon this railway shall be completed within 4 years from the passing of this Act; the subsidy granted by this Act not to exceed in the whole.....	41,100

<b>330.</b> To the Pontiac Pacific Junction Railway Company, for the construction or acquisition of $7\frac{1}{2}$ miles of railway, from Hull to Aylmer, in lieu of the subsidy granted by chapter 2 of 1890, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 24,000
<b>331.</b> To the Pontiac Pacific Junction Railway Company, for 85 miles of their railway from Aylmer to Pembroke, the balance remaining unpaid of the subsidy granted by chapter 8 of 1884, less the subsidy granted for the line from Hull to Aylmer, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	73,172
<b>332.</b> To the Harvey Branch Railway Company, for 3 miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole.....	4,046
<b>333.</b> For a railway from a point on the Intercolonial Railway near Newcastle via Douglstown, to a point on the River Miramichi opposite the town of Chatham, in the province of New Brunswick, 6 miles, in lieu of the subsidy granted by chapter 10 of 1886, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
<b>334.</b> For a railway from some point on the Joggins Railway, near the Hebert River, to Young's Mills, in the province of Nova Scotia, a distance of 5 miles, in lieu of the subsidy granted by chapter 3 of 1889, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000
<b>335.</b> To the Woodstock and Centreville Railway Company, for a railway from Woodstock to the international boundary between the province of New Brunswick and the state of Maine, 26 miles, in lieu of the subsidies granted by chapter 24 of 1887 and chapter 2 of 1890 a subsidy not exceeding \$3,200 per mile nor exceeding in the whole.....	83,200
<b>336.</b> For 90 miles of the railway from Newport or Windsor to Truro, or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville through the valley of the Musquodoboit River towards a point on the proposed Dartmouth branch of the Intercolonial, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; and also for a railway bridge over the Shubenacadie River on the line of the said railway, a subsidy of 15 per cent on the value of the structure; the whole not exceeding.....	300,000
<b>337.</b> To the Nipissing and James Bay Railway Company, for 25 miles of their railway from, at or near North Bay Station on the Canadian Pacific Railway towards James Bay, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; also for 43 miles of their railway from North Bay towards Lake Tamagaming, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	217,000
<b>338.</b> To the Lotbinière and Mégantic Railway Company, for 15 miles of their railway, in addition to the 15 miles already subsidized and built, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
<b>339.</b> To the Drummond County Railway Company, for 30 miles of their railway from St. Leonard northerly towards a junction with the Intercolonial Railway at Chaudière Junction, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000

## Department of Railways and Canals.

<b>340.</b>	For a railway from Lime Ridge, in the county of Wolfe, in the province of Quebec, northerly through the county of Wolfe and into the county of Megantic, a distance not exceeding 50 miles from Lime Ridge, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 160,000
<b>341.</b>	To the Strathroy and Western Counties Railway Company, for 25 miles of their railway from St. Thomas through the counties of Elgin and Middlesex, towards Forest Station or Park Hill, on the Grand Trunk Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
<b>342.</b>	To the Parry Sound Colonization Railway Company, for 20 miles of their railway east from Parry Sound, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
<b>343.</b>	To the Manitoulin and North Shore Railway Company, for 10 miles of their railway from Little Current to Nelson, on the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
<b>344.</b>	To the United Counties Railway Company for 32 miles of their railway from Iberville to Sorel, in addition to the 32 miles already subsidized, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	102,400
<b>345.</b>	To the Joliette and St. Jean de Matha Railway Company, for 12 miles of their railway from St. Jean de Matha to Ste. Emelie de L'Energie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>346.</b>	To the Great Northern Railway Company, for 22 miles of their railway, from the eastern end of the 15 miles subsidized by chapter 2 of 1893 to a point between Joliette and St. Félix de Valois, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>347.</b>	To the Quebec and Lake St. John Railway Company, for 2 miles of the Chicoutimi branch of their railway, from the east end of the 50 miles already subsidized and built eastward to deep water at Chicoutimi, a subsidy not exceeding \$3,200 per mile; also for 12 miles from the 52nd mile on the Chicoutimi branch to Ha Ha Bay, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	44,800
<b>348.</b>	To the Pontiac and Ottawa Railway Company, for 23 miles of their railway from the point of divergence from the Pontiac Railway to Ferguson's Point, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	73,600
<b>349.</b>	To the Ottawa and Gatineau Valley Railway Company, for 20 miles of their railway from the eastern end of the 62 miles already subsidized towards Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
<b>350.</b>	To the Canada Eastern Railway Company for 6 miles of their railway from the town of Chatham to Black Brook, a subsidy not exceeding \$3,200 per mile; also for 4 miles of their railway for a branch to the village of Nelson, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	32,000
<b>351.</b>	For a railway from Cross Creek Station, on the Canada Eastern Railway to Stanley village, in the county of York, in the province of New Brunswick, 6 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
<b>352.</b>	To the Restigouche and Victoria Railway Company, for 20 miles of their railway from the western end of the 15 miles subsidized by chapter 5 of 1892, towards Grand Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000

<b>353.</b>	To the Central Railway Company of New Brunswick, for 15 miles of their railway from Chipman station to the Newcastle coal fields, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 48,000
<b>354.</b>	To the Tobique Valley Railway Company, for 15 miles of their railway from the present terminus at Plaister Rock easterly, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
<b>355.</b>	Towards the restoration or renewal of the railway bridge on the South-eastern Railway over the Yamaska River at Yamaska, a subsidy equal to one-third of the actual cost of the renewal of the bridge, but the grant not to exceed in the whole.....	50,000
<b>356.</b>	To the Boston and Nova Scotia Coal and Railway Company, for 10½ miles of their railway from the north end of the section already subsidized to Broad Cove, a subsidy not exceeding \$3,200 per mile; also for 25 miles of their railway from a point on the Cape Breton Railway at or near Orangedale towards Broad Cove, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; the whole not exceeding	113,600
<b>357.</b>	For a railway from Port Hawkesbury towards Cheticamp, 25 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
<b>358.</b>	To the Manitoba North-western Railway Company, for 100 miles of the extension of their main line from its present western terminus towards Prince Albert,—the company relinquishing 3,200 acres of the land grant per mile, and the whole road to be operated as a continuous line of railway under one management, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	320,000
<b>359.</b>	For a line of railway from the junction of the Elk and Kootenay Rivers to Coal Creek, a distance of 34 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
<b>360.</b>	For a railway from Abbotsford Station on the Mission Branch of the Canadian Pacific Railway to the town of Chilliwack, 21 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	67,200
<b>361.</b>	To the Nicola Valley Railway Company, for 28 miles of their railway from the western end of the section of their road subsidized by chapter 5, of 1892, towards Nicola Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
<b>362.</b>	To the Nakusp and Slocan Railway Company, for 38 miles of their railway from the town of Nakusp to a point at or near the Forks of Carpenter Creek, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	121,600
<b>363.</b>	To the Pontiac and Kingston Railway Company, for 22 miles of a railway from Portage du Fort to Upper Thorne Centre, via Shawville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>364.</b>	To the New Glasgow Iron, Coal and Railway Company, for 5 miles of their railway, from Sunnybrae to Kerrogare, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	16,000 00
<b>365.</b>	To the South Shore Railway Company, for 35 miles of their railway from Yarmouth towards Shelburne and Lockport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	112,000 00
<b>366.</b>	To the Cape Breton Railway Extension Company, for 30 miles of railway from Port Hawkesbury to St. Peter's, on their line of railway from Port Hawkesbury to Louisbourg, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00

## Department of Railways and Canals.

<b>367.</b>	For a railway from a point on the Intercolonial Railway between Norton and Sussex Stations towards Havelock, 20 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 64,000 00
<b>368.</b>	For a railway from St. John to Barneville, for a distance of 10 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	32,000 00
<b>369.</b>	For a line of railway from Cap de la Magdeleine to connect with the Piles Branch of the Canadian Pacific Railway, 3 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	9,600 00
<b>370.</b>	To the Canada Eastern Railway Company, for an extension of one mile from the western end of their railway, to connect with the Canadian Pacific Railway, a subsidy not exceeding.	3,200 00
<b>371.</b>	To the Great Northern Railway Company, for 30 miles of their railway from its junction with the Lower Laurentian Railway near St. Tite, in the vicinity of the River St. Maurice, westward, in lieu of the subsidy granted to the Maskinongé and Nipissing Railway Company by chapter 2 of 1893, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	96,000 00
<b>372.</b>	To the Lindsay, Bobcaygeon and Pontypool Railway Company, for 16 miles of their railway from Bobcaygeon to the Midland Railway, and for another 16 miles from the end of the first mentioned 16 miles to Pontypool, in lieu of the subsidies granted by chapter 2 of 1890, and chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	102,400 00
<b>373.</b>	To the Montfort Colonization Railway Company, for 12 miles of their railway from the end of the 21 miles already subsidized westward to a point on the Rouge River, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	38,400 00
<b>374.</b>	For a railway from a point on the Caraquet Railway, at or near Pokemouche siding, towards Tracadie village, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	38,400 00

The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railway and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

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

The said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the

subsidy granted to the Great Northern Railway Company by chapter two of 1893, for fifteen miles from Montcalm to the Canadian Pacific Railway, which shall be paid as follows: on the completion of the eighteen miles from New Glasgow to Montcalm and of two miles out of the fifteen miles from Montcalm to the Canadian Pacific Railway, an instalment proportionate to the value of the ten miles out of the total mileage subsidized by chapter two of 1893, to be established as aforesaid, and the balance of the said subsidy on the completion of the remaining thirteen miles of the said railway.

#### LAND SUBSIDIES.

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

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

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

2. To the North-western Coal and Navigation Company (Limited), Dominion lands to an extent not exceeding three thousand eight hundred acres for each mile of the company's railway, from Medicine Hat to the coal banks on the Belly River, about one hundred and ten miles.
3. To the Manitoba and South-western Colonization Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from its commencement at Winnipeg to its terminus at Whitewater Lake, about one hundred and fifty miles.
4. To the Manitoba and North-western Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway, for the whole distance from Portage la Prairie to the crossing of the South Branch of the River Saskatchewan, twenty miles from Prince Albert, about four hundred and thirty miles.
5. To the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from its commencement near Regina to the navigable waters of Long Lake.

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

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

6. To the Manitoba and North-western Railway Company, Dominion lands to the extent of six thousand four hundred acres per mile for each mile of the company's branch railway running from a point on the main line of that railway, at or near Todburn, in a north-westerly direction through the county of Russell to the Assiniboine River, near the town of Shellmouth, about twenty-six miles.
7. To the North-west Central Railway Company, or to such other company as may undertake the construction of the railway, or a railway from a point on the Manitoba and North-western Railway via Rapid City, westward, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway, for the whole distance from Brandon station on the Canadian Pacific Railway, or from such point on the Manitoba and North-western Railway as aforesaid, to Battleford, in the provisional district of Saskatchewan, about four hundred and fifty miles.

NOTE.—No subsidies were authorized by 58-59 Vic. (1895).



## Department of Railways and Canals.

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

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

By section 5 of this Act authority was given for the incorporation by the Governor in Council of a company to construct the line from Brandon, or other point indicated, to Battleford, subsidized by this Act.

By 50-51 Vic., cap. 22, 1887 (*Assented to 23rd June, 1887*):—

- 9.** The subsidy to the North-western Coal and Navigation Company, granted by 49 Vic., chap. 60, was increased from 3,800 acres per mile to 3,840 acres per mile.

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

- 10.** To the Alberta and Athabasca Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from some point on the Bow River or Canadian Pacific Railway, at or between Calgary and Crowfoot Creek, to a point near the town plot of Edmonton, about three hundred miles.
- 11.** To the Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point near the northern terminus of the completed portion of that railway, at or near Long Laketon, on the navigable waters of Long Lake, to a point at or near where the fifty-second parallel of latitude crosses the South Saskatchewan River, thence to a point at or near the elbow of the North Saskatchewan River, with branches to Prince Albert and Battleford, about three hundred and twenty-five miles.
- 12.** To the Medicine Hat Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway, to the coal field in or near townships twelve and thirteen, range six, west of the fourth principal meridian, a distance of about eight miles, to be selected out of such lands as are at the disposal of the Government in the proximity of the line of the company's railway.

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

By 52 Vic., chap. 4, 1889 (*Assented to 2nd May, 1889*):—

- 13.** To the North-western Coal and Navigation Company (Limited), in addition to the grant provided for by section one of the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign and chaptered sixty, Dominion lands to an extent not exceeding two thousand six hundred

acres for each mile of the company's railway from Dunmore station, on the Canadian Pacific Railway, to Lethbridge, on the Belly River, the present terminus of the said railway, a distance of one hundred and nine and one-half miles,—such additional grant to be made only on condition that the gauge of the said railway be made standard width ; and also to the said North-western Coal and Navigation Company (Limited), Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Lethbridge to the international boundary, a distance of about fifty miles.

14. To the Red Deer Valley Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Cheadle Station, on the Canadian Pacific Railway, to its terminus at a point in or near township twenty-nine, range twenty-three, west of the fourth meridian, a distance of about fifty-five miles.
15. To the North-western Railway Company of Canada, Dominion lands to an extent not exceeding ten thousand acres for each mile of the company's railway from Calgary, on the Canadian Pacific Railway, northerly to a point on the North Saskatchewan River, at or near Edmonton, a distance of about two hundred and ten miles ; and also to the said North-western Railway Company of Canada, Dominion lands to an extent not exceeding ten thousand acres for each mile of the company's railway from Calgary southerly to Lethbridge, a distance of about one hundred and twenty miles.
16. To the Lake Manitoba Railway and Canal Company, Dominion lands to an extent not exceeding six thousand acres for each mile of the company's railway from Portage la Prairie to the southern boundary of Lake Manitoba, a distance of about seventeen miles.

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

“The Governor in Council may make the grant of land provided for by section three of the Act forty-ninth Victoria, chapter eleven, being for the line of the Wood Mountain and Qu'Appelle Railway, of about two hundred and forty miles in length, applicable to the line of railway of the said company, as authorized by the Act respecting the Wood Mountain and Qu'Appelle Railway Company, passed during the present session of Parliament, upon the like terms and subject to the like conditions as those upon which the grant hereinbefore mentioned was authorized to be made to the said company by the Act in this section first cited.”

By the Act 53 Vic., cap. 4, 1890 (*Assented to 16th May, 1890*):—

17. To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line to be constructed from Glenboro' westerly a distance of about sixty miles to a point on the proposed branch railway of the said company running from Brandon south-westerly.
18. To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line of railway from a point at or near Brandon, on the main line of the Canadian Pacific Railway, south-westerly to or near township three, range twenty-seven, west of the first principal meridian, and thence westerly, a total distance of one hundred miles ; and also a similar grant, at the same rate per mile, for the said company's proposed branch railway from a point on the line just described at or near township three, range twenty-seven, west of the first principal meridian, easterly to Deloraine, a distance of about twenty-five miles, making the total length of railway to which this grant is applicable one hundred and twenty-five miles.

## Department of Railways and Canals

- 19.** To the Brandon and South-western Railway Company, Dominion lands to an extent not less than six thousand four hundred acres per mile for the line of railway from a point in township one, in either range twenty-three or twenty-four west of the first principal meridian, to Deloraine, a distance of about seventeen miles.
- 20.** To the Lac Seul Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Shelly Station, on the main line of the Canadian Pacific Railway, to a point at or near White Mud Lake, on the Winnipeg River, a distance of about eighteen miles.
- 21.** To the Calgary and Edmonton Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Calgary to a point at or near Edmonton on the North Saskatchewan River, a distance of about one hundred and ninety miles; and also a grant of six thousand four hundred acres for each mile of the company's railway from Calgary to a point on the international boundary between Canada and the United States, a distance of about one hundred and fifty miles.
- 22.** To the North-western Coal and Navigation Company (Limited) Dominion lands to an extent not exceeding three thousand eight hundred and forty acres for each mile of the company's railway from Lethbridge to the Crow's Nest Pass, a distance of about one hundred miles.
- 23.** To the Lake Manitoba Railway and Canal Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile, for a line of railway from Portage la Prairie to Lake Winnipegosis, at or near Meadow Portage, a distance of about one hundred and twenty-five miles.
- 24.** To the Manitoba and South-eastern Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile, for a line of railway from Winnipeg southerly or south-easterly to a point on the west side of the Lake of the Woods, a distance of about one hundred and ten miles.

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

The lands by this Act authorized to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands or property of the said company created before the passing of this Act.

By the special Act 53 Vic., cap. 3, 1890 (*Assented to 26th March, 1890*):—

- 25.** The Act 52 Victoria, chapter 4, authorizing, in error, the grant of land to the North-western Coal and Navigation Company, for fifty miles from Lethbridge to the international boundary, was amended—the said grant being made to the Alberta Railway and Coal Company.

By 54-55 Vic., cap. 9, 1891 (*Assented to 30th September, 1891*):—

- 26.** In lieu of the subsidy in land authorized by the Act 52 Victoria, chapter 4, to be granted to the Red Deer Valley Railway and Coal Company, and subject to the conditions in the said Act mentioned, the Governor in Council may grant Dominion lands to the said company to an extent not exceeding six thousand four hundred acres for each mile of the said company's railway, from the town of Calgary, in the district of Alberta, in the North-west Territories, to a point in or near township twenty-nine, range twenty-three, west of the fourth meridian, a distance of about fifty-five miles.

By 54-55 Vic., cap. 10, 1891 (*Assented to 30th September, 1891*):—

- 27.** To the Manitoba South-western Colonization Railway Company, in addition to the subsidy for one hundred and fifty miles of railway authorized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter sixty, Dominion lands to the extent of six thousand four hundred acres per mile for the balance of the two hundred and twelve miles of railway which have been constructed and are in operation, that is to say, for a distance of sixty-two miles.
- 28.** Also, to the Manitoba South-western Colonization Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's branch line of railway from Carmen to Barnsley, a distance of about six and one-quarter miles.
- 29.** To the Canadian Pacific Railway Company, in addition to the subsidy authorized by the Act 53 Victoria, chapter 4, for the company's branch line running in a south-westerly and westerly direction from a point at or near Brandon for a distance of one hundred miles, Dominion lands to the extent of six thousand four hundred acres for each mile of the extension westward of the said branch line, from the western limit of the said one hundred miles to a point at or near La Roche Percée, situated in township one, range six, west of the second meridian, a distance of about sixty miles.

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

By the Act 57-58 Vic., cap. 6, 1894 (*Assented to 23rd July, 1894*):—

- 30.** To the Rocky Mountain Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Olds Station on the line of the Calgary and Edmonton Railway in a westerly direction to the Red Deer River and thence along the said river in a westerly direction to the coal fields, a distance of about sixty miles.
- 31.** To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Souris on the Souris Branch of the Canadian Pacific Railway, in a westerly direction to the Pipestone Valley, a distance of about thirty-two miles.
- 32.** To the Brandon and South-western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point in township one, in either range twenty-three or twenty-four west of the first principal meridian, to a point at or near Deloraine, a distance of about seventeen miles.
- 33.** To the Saskatchewan and Western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from Minnedosa to Rapid City, a distance of about fifteen miles.

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

The lands authorized by this Act to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands or property of the said company created before the passing of this Act

# Department of Railways and Canals.

## APPENDIX No. II.

STATEMENT of Contracts entered into during the Fiscal Year ended 30th June, 1895.

### 1. SUBSIDIZED RAILWAYS.

No. of Contract	Contractor.	Date of Signature.	General Description.
11900	Drummond County Railway Co.	14th Nov., 1894.	From St. Léonard to Chaudière Junction, I.C.R.
11905	Inverness and Richmond Railway Co. (Limited)	23rd do 1894.	From Port Hawkesbury, Co. of Inverness, N.S., towards Chéticamp.
11908	Lotbinière and Mégantic Railway Co.	19th do 1894.	From end in Seigneurie of St. Jean Deschailions, 12½ miles and from Lyster Station, G.T.R., to Lyster, 2½ miles.
11944	Canada Eastern Railway Co.	Not signed	From west end of their line to connect C.P.R. with St. Mary's Bridge.
11971	South Shore Railway Co. (Limited) of Nova Scotia.	28th Feb., 1895.	From Yarmouth towards Shelburne and Lockeport, N.S.
11988	British Columbia Southern Railway Co.	Not signed	From junction of Elk and Kootenay Rivers to Coal Creek.
12014	Quebec and Lake St. John Railway Co.	13th July, 1895.	From east end of their line already built eastward to deep water at Chicoutimi.
12035	Cap de la Madeleine Railway Co.	Not signed	From Cap de la Madeleine to the Piles Branch of the C.P.R.
12042	Central Railway Co. of N.B.	7th Sept., 1895.	From Chipman Station to Newcastle Coal Fields.
12043	Ontario and Pacific Railway Co.	1st June, 1895.	From Cornwall to Ottawa.
12058	Ottawa and Gatineau Railway Co.	Not signed	From eastern end of 62 miles already subsidized towards Désert.
12060	Tilsonburg, Lake Erie and Pacific Railway Co.	16th July, 1895.	From Port Burwell to Tilsonburg, 16 miles, in lieu of subsidy granted in 1892.
12101	St. Stephen and Milltown Railway Co.	5th Aug., 1895.	From St. Stephen to Milltown, N.B., 3½ miles.
12115	Great Northern Railway Co.	Not signed	From junction with Lower Laurentian Railway near St. Tite in vicinity of River St. Maurice, westward, 30 miles.
11845	Oshawa Railway Co.	5th Aug., 1895.	From Port Oshawa to Mill Street, to Town Hall and G.T.R. Station, 7 miles.

### 2. INTERCOLONIAL RAILWAY.

11907	Montreal Car Wheel Co.	11th Oct., 1894.	Supply 2,000 car wheels.
11973	Ross Bros.	18th Jan., 1895.	Farm crossing gates.
11991	Central Bridge and Engineering Co. (Limited)	15th March, 1895.	Construct steel single track.
11994	D. McGregor & Son.	4th Jan., 1895.	do branch line from Tuft's Cove.
11995	Thomas Cook.	4th do 1895.	do do do Windsor Junction.
*12048	Intercolonial Coal Mining Co.	27th May, 1895.	Supply 6,700 tons coal, P.E.I. Railway.
12106	Rhodes, Curry & Co.	22nd June, 1895.	2 engine houses for Dartmouth Branch.
12107	Theo. B. LeBlanc.	10th do 1895.	Foundation freight shed, deep water terminus, Halifax.
12119	Rhodes, Curry & Co.	6th July, 1895.	Station and freight House at Waverly, N.S.
12124	Dominion Bridge Co.	19th June, 1895.	Single track steel bridge, Monastory Station, N.S.
12125	do do	10th July, 1895.	2 do do do Red Pine River.
12131	R. C. Donald & Co.	24th do 1895.	Brick freight house, Halifax.
12132	Crossen Car Mfg. Co. (Limited)	8th Aug., 1895.	20 box freight cars.
12133	Dominion Coal Co.	30th June, 1895.	Supply 2,500 tons coal.
12134	do do	do do 1895.	do 15,000 do
12135	Cumberland Railway and Coal Co.	do do 1895.	do 80,000 do and 10,000 tons slack.

APPENDIX No. 11.—Statement of Contracts entered into during the Fiscal Year ended 30th June, 1895—*Continued.*2. INTERCOLONIAL RAILWAY—*Continued.*

No. of Contract.	Name of Contractor.	Date of Signature.	General Description.
12136	William Hall.....	30th June, 1895.	Supply 5,000 tons coal.
12137	Intercolonial Coal Mining Co.....	30th do 1895.	do 25,000 do
12138	Acadia Coal Co. (Limited).....	30th do 1895.	do 30,000 do
12143	Rathbun Co.....	2nd Aug., 1895.	15 box freight cars.
12145	Rhodes, Curry & Co.....	27th do 1895.	50 box freight cars.
12152	Thomas Atkinson.....	21st do 1895.	Station house, Beaver Brook.
12155	A. Holden & Co.....	26th July, 1895.	Engine oil.
12156	Bushnell & Co.....	26th do 1895.	Engine oil, cylinder oil, &c.
12157	J. R. Hutchins.....	26th do 1895.	do do do
12158	Imperial Oil Co.....	26th do 1895.	Passenger coach oil, &c.
12159	Eastern Oil Co.....	26th do 1895.	Passenger coach oil, petroleum, &c.
12167	Canada Coals and Railway Co. (Limited).....	30th June, 1895.	Supply 30,000 tons coal.
12168	General Mining Association.....	30th do 1895.	do 2,500 do and 10,000 tons slack.
12169	Crossen Car Manufacturing Co. (Limited).....	30th do 1895.	75 platform cars.
12172	Rhodes, Curry & Co (Limited).....	20th Aug., 1895.	75 do do
12173	do do.....	16th Sept., 1895.	40 six-ton coal cars.

## 3. BEAUHARNOIS CANAL.

11919	Jas. Wright.....	4th Dec., 1894.	Supply stone to repair locks.
11921	John C. Hague.....	4th do 1894.	Piers for iron bridge across Lost Channel.
11931	Dominion Bridge Co. (Ltd).....	27th do 1894.	Steel bridge across Lost Channel.

## 4. CARILLON AND GRENVILLE CANAL.

11951	Nicholson & Stewart.....	14th Jan., 1895.	North abutment swing bridge, Grenville.
-------	--------------------------	------------------	---

## 5. RIDEAU CANAL.

11938	M. Ryan.....	26th Dec., 1894.	Retaining walls at Merrickville.
11955	Francis Hourigan.....	18th Jan., 1895.	Masonry piers for new swing bridge, Smith's Falls.
11980	Canadian Bridge & Iron Co.....	11th Mar., 1895.	Steel superstructure, Wellington bridge.
11984	Hebron Harris.....	22nd April, 1895.	Supply 4,000 c. ft. white oak timber.
12028	John R. Booth.....	20th May, 1895.	Sheet piling, Deep Cut, Ottawa.
12056	Robt. Weddell.....	29th June, 1895.	Swing bridge.
12146	Matthew Ryan.....	6th Sept., 1895.	House for lock-keeper, Smith's Falls.

## 6. SAULT STE. MARIE CANAL.

11949	J. & R. Miller.....	2nd Feb., 1895.	1 pair spare lock gates.
11962	S. H. Fleming & Co.....	14th do 1895.	Build timber booms.
11982	Dominion Bridge Co. (Ltd).....	27th Mar., 1895.	Movable dam and swing bridge.
12032	Wm. Kennedy & Sons.....	10th June, 1895.	Horizontal new American turbine.
O. C. 154198	} Hugh Ryan & Co.....	15th Oct., 1894.	6 motor houses.
O. C. 154199			
12164	J. & R. Miller.....	10th Dec., 1894.	Pontoon lock gate lefter.
12164	J. & R. Miller.....	Not signed.	Office and workshop.

## Department of Railways and Canals.

APPENDIX No. 11.—Statement of Contracts entered into during the Fiscal Year ended 30th June, 1895—*Continued.*

### 7. SOULANGES CANAL.

No. of Contract.	Name of Contractor.	Date of Signature.	General Description.
12016	Bellhouse, Dillon & Co. . . . .	19th July, 1895.	25,000 barrels Portland cement, "North's Condor" brand.
*11851	C. J. DeSola . . . . .	13th Feb., 1895.	4,000 barrels Portland cement "Josson's" brand.

\*Contract extended.

### 8. TRENT VALLEY CANAL.

11923	A. Onderdonk . . . . .	13th Feb., 1895.	Section 1, Simcoe-Balsam Lake division.
12128	Brown, Love & Aylmer . . . . .	27th Aug., 1895.	Section 1, Peterborough-Lakefield division.
12141	John Wolfred Wurtele . . . . .	24th do 1895.	2,500 barrels Portland cement "Monarch Cycle" brand.

### 9. WELLAND CANAL.

11898	Battle & Newman . . . . .	9th Nov., 1894.	Rebuild superstructure, east pier, Port Dalhousie.
11911	do . . . . .	19th do 1894.	Stone culvert at junction of Feeder,
12026	James Wilson . . . . .	21st May, 1895.	Castings for 1895.
12059	Murray & Cleveland . . . . .	29th June, 1895.	Dredge sand bar entrance at Port Colborne.

### 10. WILLIAMSBURG CANAL.

12102	J. & R. Miller . . . . .	15th July, 1895.	One pair lock gates, lower recess lock 22.
12108	Kerr Bros . . . . .	Not signed. . . . .	Renew part superstructure north pier, lower entrance, Farran's Point Canal.
12110	Cardinal Manufacturing Co. . . . .	20th July, 1895.	Superstructure north and south piers, lock 26, Galops Canal.
11913	J. & R. Miller . . . . .	14th Dec., 1894.	One pair lock gates, lock 23, Rapide Plat Canal.

### 11. CORNWALL CANAL.

12150	J. & R. Miller . . . . .	Not signed.	2 pairs lock gates, locks 15 and 17.
12175	Wm. Davis & Sons . . . . .	do	Reconstruction south pier and ice breaker.

### 12. LACHINE CANAL.

12153	Gaherty & Shearer . . . . .	10th Sept., 1895.	Cribwork above Wellington bridge.
-------	-----------------------------	-------------------	-----------------------------------

### 13. ST. PETER'S CANAL.

11895	S. O'Donoghue . . . . .	19th Dec., 1894.	Repairs.
-------	-------------------------	------------------	----------

WALTER S. DOULL.

APPENDIX

GENERAL

SHOWING Water power and other Public Property leased by the Department

Date of Signature.	Term of Lease.	Lessees.	Property Leased.	Area of Property Leased.
<i>1. Beauharnois Canal.</i>				
Jan. 8, '95	21 years renewable.	Montreal Cotton Co.	Old lots 2, 3, 4, 5, 6, 7, Cad. lots 836, 837, 834, 832, 830E, 845, &c., in lieu of former lease.	.....
Feb. 11, '95	Pleasure of Government.	La Cie d'Amusement de Sainte-Cécile.	Part cad. lot 1, at upper entrance...	.....
<i>2. Carillon and Grenville Canal.</i>				
Mch. 13, '95	21 years renewable.	Jessie Taylor, adm. of Estate Geo. Sterling.	Lot at base of Major's Hill, Ottawa River, near Rideau Canal (wharf lot.)	.....
<i>3. Lachine Canal.</i>				
Dec. 4, '94	Pleasure of Government.	P. D. Dods & Co....	Water supply 3" pipe to factory, Island St., Montreal.	.....
Mch. 6, '94	do	Citizens Light and Power Co.	8" pipe to company's station, St. Henri....	.....
Jan. 9, '95	do	Dobell, Beckett & Co	600' x 40' in St. Gabriel shed No. 1, basin No. 1.	.....
Mch. 22, '95	do	J. V. Traversey & Co	100' x 40' in St. Gabriel shed No. 2, basin No. 2.	.....
Not signed..	do	Grand Trunk Ry. Co.	Railway track from St. Henri bridge easterly to Montreal Rolling Mills and westerly to Clendinneng, &c.	.....
do	do	Armstrong & Cook..	Connect drain Montreal west with Lachine drain.	.....
do	3 years....	Major Bros.....	Space in New St. Gabriel's shed No. 1....	.....
<i>4. Rideau Canal.</i>				
Feb. 11, '95	Pleasure of Government.	Robert Anglin.....	Mill lot and surplus water, Brewer's Upper Mills.	3.14 acres..
do	do	do	Lot 25, 8th con., Pittsburg Upper Mills....	40.00.....
June 6, '95	21 years renewable.	The Ottawa, Arnprior and Parry Sound Ry. Co.	Portion lot F, con. D, (Ordnance reserve, Deep Cut, Ottawa) Tp. Nepean, Carleton County.	6.6 acres....
do 6, '95	21 do	do	Portions lots, Rideau Front, Ordnance reserve.	14 acres.....
July 31, '95	21 do	do	Portions lots C and D, con. C, Rideau Front, Ordnance reserve.	3.12.....
<i>5. Williamsburg Canal.</i>				
Not signed..	Pleasure of Government.	F. Broder Robertson.	Pt. lot 6, con. 1, Tp. Matilda, Dundas Co..	0.22.....



# Department of Railways and Canals.

No. 12.

## STATEMENT

of Railways and Canals during the Fiscal Year ended 30th June, 1895.

For what purpose used,	Amount of Water Power Leased.	Date from which Lease is reckoned.	Terms of Payment				Remarks.
			Annual Rental.	Amount of each instalment.	When due each year.	When first instalment was due.	
			\$ cts.	\$ cts.			
Cotton mills..	Surplus water.	July 1, 1894	600 00	300 00	Jan. 1, Jul. 1	Jan. 1, '95	In advance.
Skating rink, Boat house &c.	.....	Jan. 1, 1895	35 00	35 00	January 1...	Jan. 1, '95	In advance.
Wharf lot.....	.....	Jan. 1, 1895	100 00	50 00	Jan. 1, Jul. 1	July 1, '95	1st renewal of No. 4286.
Paint factory..	3" pipe...	Jan. 1, 1895	30 00	30 00	January 1...	Jan. 1, '95	In advance.
Company's en- gines.	8" pipe. .	Jan. 1, 1895	80 00	80 00	January 1...	Jan. 1, '95	do
Storing lumber	600' x 40'.	Dec. 1, 1894	600 00	50 00	1st each mo.	Dec. 1, '94	do
do do	100' x 40'.	Feb. 1, 1895	100 00	.....	February 1.	Feb. 1, '95	do
Receive or de- liver goods.	.....	May 1, 1895	500 00	500 00	May 1.....	May 1, '95	do
Carrying off surface water.	.....	May 1, 1895	1 00	1 00	May 1...	May 1, '95	do
Tar paper.....	100' x 40'.	May 1, 1891	100 00	.....	May 1.....	May 1, '95	Lessee refuses to sign.
Manufacturing	25 h. p....	Jan. 1, 1892	30 00	15 00	Jan. 1, Jul. 1	Jan. 1, '92	Cancels No. 9515.
Pasturage ....	.....	Jan. 1, 1892	15 00	.....	January 1...	Jan. 1, '92	In advance.
Buildings, track and switches.	.....	May 1, 1895	20 00	.....	May 1 .....	May 1, '96	do
Approach to depot.	.....	May 1, 1895	200 00	.....	May 1.....	May 1, '96	do
do do	.....	May 1, 1895	400 00	.....	May 1.....	May 1, '96	do
Dwelling house.	.....	Oct. 1, 1895	20 00	.....	October 1...	Oct. 1, '95	In advance.

## GENERAL STATEMENT showing Water Power and other Public Property

Date of Signature.	Term of Lease.	Lessees.	Property Leased.	Area of Property Leased.
<i>6. Welland Canal.</i>				
Jan. 11, '95	10 years.....	Brown Bros.....	Reserve land east side of canal.....	
Feb. 26, '95		Thomas C. Dawson to Herbert Collier.	Assignment of lease originally granted to R. J. Wigle (under No. 11239).	
do 26 '95		Herbert Collier to John C. Morris.	Assignment of lease No. 11239.....	
May 18, '95	10 years.....	The Welland Electric Light Co.	30' x 40' between Welland raceway and Welland River.	1,200 sq. ft..
Aug. 9, '95	Pleasure of Government.	Leonard S. Bessey et al.	2" syphon pipe west bank of new canal.....	
Not signed.	10 years.....	Hutchinson, Hicks & Julian.	Parcel of land west of west pier at Port Dalhousie north entrance.	
do	Pleasure of Government.	Sperry Carter.....	1½" iron pipe to house on West St., Port Colborne.	
Aug. 8, '95	10 years.....	Ontario Peat Fuel Co.	Part of lot 8, con. 4.....	
<i>7. Intercolonial Railway.</i>				
Nov. 8, '95	25 years.....	Hon. N. H. Meagher to Government.	Land at Lower Stewiacke Branch Extension	1,800 ft. ....
Dec. 18, '94	5 years.....	Rossin House Hotel Co. to Government.	Office in hotel for general freight and tickets, York St., Toronto.	Room.....

## Department of Railways and Canals.

leased by the Department of Railways and Canals—*Concluded.*

For what purpose used.	Amount of Water Power Leased.	Date from which Lease is reckoned.	Terms of Payment.			Remarks.	
			Annual Rental.	Amount of each instalment.	When due each year.		When first instalment was due.
Storehouse and dock.		Jan. 1, 1895	50 00		January 1.	Jan. 1, '95	In advance.
Wharf, &c.							Consideration \$2,000.
do							Consideration \$1,300.
Steam plant.		May 1, 1895	20 00		May 1	May 1, '95	In advance.
Watering cattle.	2" pipe.	July 1, 1895	1 00		July 1	July 1, '95	do
Summer hotel.			50 00				do
Domestic.	1½" pipe.	July 1, 1895	10 00		July 1	July 1, '95	do
Storage and shipping.		July 1, 1895	15 00		July 1	July 1, '95	Cancels lease No. 11694
*							
		Oct. 1, 1894	460 00	115 00	Jan. 1, Apl. 1, Jul 1, Oct. 1	Jan., 1, '95	

\* The Government making and maintaining the cattle guards, and crossing for the use of Hon. Meagher and servants.

**WALTER S. DOULL.**

APPENDIX No. 13.

PROPERTY purchased, or damaged, by the Department of Railways and Canal, during the Fiscal Year ended 30th June, 1895.

Date of Signature.	Who sold, etc., to Her Majesty.	Property purchased, &c.			Amount Paid.	Remarks.
		Lot.	District.	County.		
Sept. 23, 1894.	Etiza Sneden, et al.	Parts of 3 lots,	<i>Annapolis and Digby Railway.</i> Clements	Annapolis	\$ cts. 406 00	
Jan. 10, 1895.	Neil McDougall, et al.	Release for removing	<i>Cape Breton Railway, extension to North Sydney.</i> hard pan on the eastern section.		4,883 20	
do 17, 1895.	Sims & McDonald	do	do		2,822 40	
do 17, 1895.	Beatty, Shirley & Beatty	do	do		6,442 00	
do 19, 1895.	McAdam & Grant	do	do		15,756 40	
do 21, 1895.	McDonnell & Cameron	Release from all claims, construction of Cape Breton Railway.			7,709 20	
do 12, 1895.	James C. McDonald	Land and dwelling	Jamesville	Victoria	300 00	Damages.
Nov. 12, 1894.	Joseph A. Martin, tutor	Release for damages received by son	<i>Intercolonial Railway.</i>		1,500 00	
Jan. 22, 1895.	James A. Sedgewick, et al.	Land and land covered with water.	Halifax Extension	Halifax	10,634 52	And \$1. judgment of Excheq. Court and costs.
Mar. 8, 1895.	Thomas Ritchie, et al.	do	do	do	4,940 00	And \$1, do
May 17, 1895.	Richard J. Flinn, guardian	do	do	do	5,440 32	
Oct. 22, 1892.	Susan and Kenneth McKenzie.	Lot 144	<i>Orford and New Glasgow Railway.</i> West River Road	Pictou	80 00	
July 3, 1894.	George D. Denoon	Lot 131 and 131A	Scotch Hill	do	374 51	

# Department of Railways and Canals.

Date	Particulars	Location	Owner	Area (Acres)	Area (Sq. feet)	Value	Remarks
Feb. 9, 1894.	Charles L. Rood, et al.	Scotburn	do	39.10		2,859 67	
June 22, 1894	Eliza Wood, et al.	Oxford	Cumberland	13.90		542 19	
Oct. 25, 1894.	Elizabeth Langille	River John	Pictou	18.61		1,270 00	And \$190 costs.
Oct. 10, 1894.	James Kitchen, Exr.	do	do	0.59		1 00	
Dec. 12, 1894.	Torrans certificate	Canadian Pacific Railway.		7.08			
		SE. 1/4 Section 5, Tp. 3, Range 8, Bl. 45	East Pembina Branch	1.6			J. B. McKillop former owner.
Mar. 21, 1895.	do	Pt. lots 6, 7, 8, " 45 " 7, 8, 9, 10, " 54 " 4, 5, " 59 " 8, 9, 10, " 4 " 1, 5, 7, 8, 9, " 11 " 3, " 18 " 6, 7, 8, 9, 10, " 28 " 1, 2, 3, 4, 5, 10, " 31 " 1, 6, 7, 9, 10, " 40	Emerson	100%			W. N. Fairbanks, et al., former owners.
Dec. 29, 1894.	Corporation Township Westmeath.	Ottawa River (Culbute) Dams.	Westmeath			400 00	Damages.
Aug. 17, 1894.	Joseph F. Aussem Hansen	Parish of Lachine	Jac. Cartier		Sq. feet. 69,006	4,847 69	
Mar. 29, 1895.	Philéas Gougeon	do	do			100 00	Damages by leakage.
do 29, 1895.	Dame F. X. Gougeon	do	do			200 00	do
April 1, 1895.	Dame F. X. Décarv (wid.)	do	do			200 00	do
Mar. 30, 1895.	Robert Benny	do	do			75 00	do
April 10, 1895.	François-X. Leduc	do	do			200 00	do
do 5, 1895.	Robt. Brodie, et al.	do	do			588 00	do
do 20, 1895.	Alexandre Madore	do	Côte St. Pierre			590 00	do
Mar. 29, 1895.	David S. Leach, et al.	do	do			598 00	do
April 6, 1895.	Alfred G. Evans	do	Côte St. Pierre			375 00	do
do 3, 1895.	William Trenholme	do	do			580 00	do
do 3, 1895.	do	do	Lachine			280 00	do
do 3, 1895.	do	do	do			280 00	do
do 3, 1895.	do	do	Montreal			140 00	do
do 3, 1895.	do	do	Lachine			210 00	do
do 3, 1895.	do	do	do			780 00	do
do 3, 1895.	do	do	do			300 00	do
Mar. 30, 1895.	Michael Hughes	do	Montreal, Côte St. Paul			300 00	do
do 29, 1895.	Félix Larivière	do	do			200 00	do
do 29, 1895.	Sauveur Larivière	do	Côte St. Paul			200 00	do

APPENDIX No. 13.—PROPERTY purchased or damaged—Continued.

Date of Signature.	Who sold, &c., to Her Majesty.	Property Purchased.			Amount paid.	Remarks.	
		Lot.	District.	County.			
April 1, 1895.	James Davidson	Pt. Lots 3413, 3414 and 3600.	<i>Lachine Canal</i> —(Continued). Parish of Montreal		\$ 50 00	Damages by leakage.	
Mar. 29, 1895.	Patrick Power	1704.	do	do	275 00	do	
do 29, 1895.	John Ryan	3413.	do	do	450 00	do	
do 29, 1895.	William West	3604.	do	Côte St. Paul.	250 00	do	
do 30, 1895.	Thomas C. Sonerville	3603.	do	do	300 00	do	
do 28, 1895.	Philias Prudhomme	179.	do	do	200 00	do	
do 29, 1895.	Cyrille Tessier (widow)	161.	do	do	100 00	do	
do 29, 1895.	Théophile Prudhomme	177.	do	do	150 00	do	
April 23, 1895.	Gilbert and Tous. Décaré	149.	do	do	350 00	do	
May 10, 1895.	André Latour, et al.	1021.	do	Lachine, Côte St. Pierre.	148 00	do	
Apr. 19, 1895.	Benjamin Décaré	139.	do	do	187 00	do	
May 1, 1895.	Gabriel Décaré	144.	do	do	351 00	do	
do 1, 1895.	do	167.	do	do	260 00	do	
do 20, 1895.	John and Peter Jackson	3617.	do	do	975 00	do	
			<i>Rideau Canal.</i>				
Oct. 25, 1894.	Thomas Sweetman	Lot 26, 7th con.	Township Bedford	Frontenac	220 00	Damages by Kerry Dam.	
Feb. 20, 1895.	James Waters	Pt. E 1/2 lot 13, 1st con.	do Bastard	Leeds	150 00	do Poonamalee do	
do 18, 1895.	Michael and John Kelly	Lot 7, 5th con.	do S. Elmsley	do	105 00	do do	
			<i>Soulanges Canal.</i>				
Oct. 3, 1894.	Mrs. A. C. Aubert de Gaspé (widow)	{ 144, 147 to 155 inclusive, 157, 233, 234, 235, 237, 239. }	Saint Ignace	Soulanges.	141 89	Commutation of seigniorial dues.	
Sep. 8, 1894.	do	Pt. lots 238 and 240.	do	do	12 12	do	
Oct. 3, 1894.	do	Parts of 55 lots.	Saint Joseph.	do	159 96	\$25 costs do	
do 3, 1894.	do	do 90 do	Saint Ignace and Saint Joseph.	do	244 04	do	
Nov. 15, 1894.	Mrs. Josephée Lalonde, et al. Jos. Chénier.	Pt. lots 34 and 35.	St. Michel de Vaudreuil (Cascades)	Vaudreuil	518 00	Deed.	

# Department of Railways and Canals.

Dec. 11, 1894	Andrew W. Johnson	do	4, 5, 6, 7, 8, 9,	do	do	do	do	do	300 00	do
do 24, 1894	François Leroux	do	135	do	do	Soulanges	do	2-30	92 49	do
do 17, 1894	François Méthot	do	130	do	do	do	do	5-66	2,800 00	do
Jan. 5, 1895	Honoré Leroux	do	408 and 410	do	do	do	do	{ 6-04 6-20 }	3,800 00	do
do 8, 1895	Alfred DeMontigny	do	318	do	do	do	do	6-11	1,900 00	do
do 17, 1895	Moise Thauvette	do	330	do	do	do	do	3-00	1,600 00	do
Feb. 4, 1895	Césaire Monpéti, <i>et uz.</i>	do	3	do	do	do	do	7-46	2,300 00	do
Apr. 4, 1895	Romuald Valois, <i>et uz.</i>	do	58 and 59	do	do	St. Michel de Vaudreuil (Cascades)	Vaudreuil	{ 0-12 0-12 }	100 00	do
do 9, 1895	Thadée Viau, <i>et al.</i>	do	23	do	do	do	do	0-36	50 00	do
do 2, 1895	Mrs. M. L. Harwood (widow)	{ Pt. lots 3, do 10, 11, 12, 13, 14, 15.		do	do	do	do		75 00	do
Mch. 30, 1895	H. S. Harwood	{ do do		do	do	do	do		75 00	do
do 31, 1895	Robert Harwood	{ do do		do	do	do	do		10 00	do
Apr. 1, 1895	Liboire Constant	{ 1 lot 78 Part lot 3, do of lots 10, 11, 12, 13, 14 and 15.		do	do	do	do		65 00	do
do 30, 1895	Mrs. M. M. A. L. de Bellefeuille (widow)	{ Part lot 3, do 10, 11, 12, 13, 14 and 15.		do	do	do	do		75 00	do
do 31, 1895	A. C. Harwood	{ do Part lot 3, do of lots 10, 11, 12, 13, 14 and 15.		do	do	do	do		75 00	do
Apr. 1, 1895	C. de V. Harwood	{ do do		do	do	do	do		15 00	do
do 1, 1895	Louise F. Harwood	{ do Part lot 3, do of do 10, 11, 12, 13, 14 and 15.		do	do	do	do		15 00	do
do 2, 1895	Mrs. E. G. Ferroux (widow)	{ do do		do	do	do	do		45 00	do
do 3, 1895	Mrs. Christine Périard	{ do do		do	do	do	do		475 00	do
May 2, 1895	Marcellin Bissonnette	{ Pt. lots 24, 25, 32, 33, 36 and 37. Part lot 311		do	do	do	do		1,800 00	do
do 2, 1895	Ostias Leroux	do 5 and 6		do	do	do	do	{ 3-45 3-59 }	2,000 00	do
do 20, 1895	John Elie	Cad. lots 1-5 inclusive		do	do	Coteau Landing	do	Feet. 9,150	200 00	Release.
do 22, 1895	Joseph Clément, <i>et al.</i>	Part lot 435		do	do	do	do	Acres. 2-11	150 00	Deed.
do 27, 1895	Joseph Aunais	do 1 and 241		do	do	Coteau Landing and St. Ignace	do	3	200 00	Deprivation of right of way, release.
do 29, 1895	Alexina Leroux, <i>et al.</i>	do 12		do	do	do	do	5-35	1,700 00	Deed.
June 4, 1895	Salomon Denis	do 4		do	do	do	do	7-30	2,400 00	do

APPENDIX No. 13.—PROPERTY purchased or damaged—Concluded.

Date of Signature.	Who sold, etc., to Her Majesty.	Property purchased, &c.		County.	Area of Land.	Amount Paid.	Remarks.
		Lot.	District.				
June 11, 1895.	Mrs. Raoul deBeaujeu	Part lots 123, 124 and 128.	Soulanges Canal—Continued.	Soulanges	{ 7.22 5.44 0.34 }	\$ cts. 3,640 00	Deed.
July 19, 1895.	Julien Clément	Part lot 433	Saint Joseph	do	Sq. feet. 157	25 00	do
do	F. X. Sauvé, et al.	do 132	do	do	Acres. 5.51	3,600 00	do
do	Joseph Leroux	do 3	Saint Ignace	do	8.14	1,600 00	do
<i>Trent Valley Canal.</i>							
Apr. 20, 1895.	John Truman, et ux.	Pt. W ½ lot 22, 9th con.	Eldon	Victoria	6.03	50 40	
do	Lachlan McEachern	Lot 23, 10th con. and 23, 9th.	do	do	{ 2½ 42½ }	550 00	
May 6, 1895.	Neil McEachern	Pt. S. ½ lot 24, 8th con	do	do	42.9	560 00	
Apr. 10, 1895.	John Ray	Part lots 49 and 50.	do	do	149.6	2,375 00	
May 1, 1895.	do	do	do	do		1 00	Release damages.
do	William McEachern	Part N. ½ lot 24, 8th con.	do	do	45.1	600 00	
do	Amelia Victoria Edwards, et al.	do N ½ lot 24, 10th con.	do	do	82½	600 00	
do	Alex. Robinson, et al.	25	do	do	69½	675 00	
do	do	Pt. lots 53 and 54, S. side Portage Road.	do	do	70.4	750 00	
do	Moses Mitchell, et al.	Part lots 52, 53, 54	do	do	{ 120.95 2½ }	800 00	
do	Ewen McKenzie, et ux.	do 47, 48	do	do	114.1	1,500 00	
do	Geo. Edward Laidlaw, et al.	do 4, S. side Portage Road.	Bexley	do	14.	495 00	
do	John Fry	{ Pt. lot 57, S. side Portage Road. 57 and 58, N. side Portage Road }	Eldon	Victoria	{ 19.7 96.0 }	1,200 00	



# Department of Railways and Canals.

June 7, 1895	Toronto General Trust Co., trustees.	Pt. lots 1, 2, 3, 4, 5, lot "C" and pt. Gov. Res. S. side Portage Road.	Bexley			1,155 00
May 16, 1895	William Routley, et ux.	Pt. lot 48 N. side Portage Road, 8th con.	Eldon			145 00
June 26, 1895	Richard Fitzgerald	Pt. W $\frac{1}{2}$ , lots 1 and 2, 8th con.	Carden			290 00
do 1, 1895	Philip J. McRae, et ux.	Pt. E $\frac{1}{2}$ , lot 23, 8th con.	Eldon			200 00
July 9, 1895	Edward Lytle, et ux.	Pt. lots 5, 6 and 7, S. side Portage Road.	Bexley			310 00
June 8, 1895	Wm. A. Silverwood, et ux.	Pt. lots 50, 51 and 59, S. side Portage Road.	Eldon			1,450 00
do 13, 1895	John Ewen, et ux.	49, 50, 51 and 52 S. side Portage Road.	do			2,650 00
April 16, 1895	Ellen Elizabeth Dillon	Pt. lot 24, 9th con.	do		18	150 00
Aug. 21, 1895	Michael Harrigan	do 12, 8th con.	Douro	Peterborough	4 88	80 00
July 8, 1895	William Taylor, et ux.	Pt. E $\frac{1}{2}$ lot 25, 10th con.	Eldon	Victoria	48 3	350 00
do 24, 1895	William Fry, et ux.	Pt. lots 57, 58, 59, S. side Portage Road.	do		59 8 99 7	1,400 00
Nov. 8, 1894	Michael Cleary	Lot 30	Dunville	Haldimand		30 00
Mar. 30, 1895	Hon. L. McCallum	Lime kiln lots.	Sherbrooke	do	44	712 50
July 11, 1895	James N. Eastman	Lot 6, block F	Morrisburg	Dundas		150 00
Aug. 7, 1895	Corporation of Morrisburg	Water works.	do	do		78 10
do 10, 1895	H. E. Snyder, et al.	Lot 5, block F	do	do		300 00
Nov. 3, 1894	Executors of J. S. Mac-Donald.	Pt. lot 27, con. 1.	Cornwall	Stormont	1 55	400 00
Jan. 10, 1895	J. G. Snetzinger, et ux.	do 37, con. 1.	do	do	3 72	408 00

Damages.  
do removing stables.

do cutting water pipes, &c.  
do do  
Damages by Rapids Plat Canal.

WALTER S. DOULL.

## APPENDIX

## AGREEMENTS respecting Subsidies in aid of construction of

Date of Signature.	Name of Railway Company.	Line of Railway to be constructed.	Acts of Canada granting subsidy.	Amount of subsidy.	
				Per mile.	Not more in all than.
1894.				\$	\$
Nov. 14.	Drummond County Ry. Co.	From St. Léonard to Chaudière Junction.	57-58 V., c. 4	3,200	96,000
do 23.	Inverness and Richmond Ry. Co. (Ltd)	From Port Hawkesbury, Nova Scotia, towards Cheticamp.	57-58 V., c. 4	3,200	80,000
do 19.	Lotbinière and Megantic Ry. Co.	From St. Jean Deschailions, 12½ miles, and from Lyster Station, G.T.R., to Lyster.	57-58 V., c. 4	3,200	48,000
Not signed	Canada Eastern Ry. Co.	Connecting the C.P.R. with St. Mary's bridge.	57-58 V., c. 4	3,200	.....
June 30 1895.	Cobourg, Northumberland and Pacific Ry. Co.	Lease of their railroad to the C.P.R. for 999 years.	52 V., c. 62. } 57-58 V., c. 68 }	.....	.....
Feb. 28.	South Shore Ry. Co. (Ltd.) of Nova Scotia.	From Yarmouth towards Shelburne and Lockeport, N.S.	57-58 V., c. 4	3,200	112,000
Not signed	British Columbia Southern Ry. Co.	From Junction of Elk and Kootenay Rivers to Coal Creek.	57-58 V., c. 4	3,200	108,800
July 13.	Quebec and Lake St. John Ry. Co.	From east end of their line to deep water at Chicoutimi, Chicoutimi Branch.	57-58 V., c. 4	3,200	.....
Not signed	Cap de la Madeleine Ry. Co.	From Cap de la Madeleine to Piles Branch, C.P.R.	57-58 V., c. 4	3,200	9,600
Sept. 7.	Central Ry. Co. of New Brunswick.	From Chipman Station to Newcastle coal fields.	57-58 V., c. 4	3,200	48,000
June 1.	Ontario and Pacific Ry. Co.	From Cornwall to Ottawa.	55-56 V., c. 5	3,200	172,400
Not signed	Ottawa and Gatineau Ry. Co.	From eastern end of 62 miles already subsidized towards Désert.	57-58 V., c. 4	3,200	64,000
July 16.	Tilsonburg, Lake Erie and Pacific Ry. Co.	From Port Burwell to Tilsonburg in lieu of subsidy granted in 1892.	57-58 V., c. 4	3,200	51,200
Not signed	St. Stephen and Milltown Ry. Co.	From St. Stephen to Milltown, N.B.	56 V., c. 2.	3,200	11,200
do	Great Northern Ry. Co.	From junction with Lower Laurentian Railway near St. Tite, in vicinity of River St. Maurice, westward.	57-58 V., c. 4	3,200	96,000
Aug. 5.	Oshawa Ry. Co.	From Port Oshawa to Mill St., and to town hall and G.T.R. Station.	56 V., c. 2.	3,200	22,400

# Department of Railways and Canals

No. 14.

Railways entered into during the fiscal year ended 30th June, 1895.

No. of miles subsidized.	Maximum Grade Feet per mile.	Radius of curvature not less than.	Width of clearing each side.	Width of cutting.	Embankment.	Steel rails, lbs. per lineal yard.	When to be completed.	Remarks.
No.	Feet.	Feet.	Feet.	Feet.	Feet.	Lbs.		
30	53	1,433	50	20	15	56	Dec. 1, 1896.	
25	80	1,433	50	20	15	56	do 1, 1896.	
15	53	1,910	50	20	15	56	do 1, 1896.	
1	27	1,433	50	20	15	56	July 1, 1895.	
.....								
35	80	955	50	20	15	56	Aug. 1, 1897.	Approved by O. C. No. 72103 of Dec. 28, 1894.
34	60	700	50	20	15	56	do 1, 1898.	
2	80	819	50	20	15	56	Dec. 1, 1895.	First part of subsidy \$44,800 57-58 V. c. 4.
3	105	574	50	20	15	56	Oct 1, 1895.	
15	74	955	50	20	15	52	Dec. 1, 1896.	
33	53	1,433	50	20	15	56	Aug. 1, 1896.	
20	106	574	50	20	15	56	do 1, 1897.	
16	53	955	50	20	15	56	do 1, 1896.	8° or 717 ft. curvature allowed at junction with Canada Southern Railway.
33	80	716	50	20	15	56	do 1, 1896.	Substituted for 10938.
30	66	573	50	20	15	56	Nov. 30, 1896.	
7	173	80	50	20	15	56	Dec. 1, 1895.	

WAITER S. DOULL.



# Department of Railways and Canals.

## APPENDIX No. 15.

### CANAL STATISTICS

FOR

#### SEASON OF NAVIGATION 1894.

##### REVENUE.

The total revenue, exclusive of Hydraulic Rents for two years, is as follows:—

For 1893.....	\$348,012 00
“ 1894.....	307,824 67

By comparing the statistics of 1893 with 1894 it will be seen that the gross revenue has decreased \$40,187.33.

The increases and decreases are as follows:—

	Increase.	Decrease.
On the Welland Canal.....		\$33,549 58
“ St. Lawrence Canals.....		4,337 47
“ Chambly Canal.....		1,461 67
“ Rideau Canal.....	\$ 170 48	.....
“ Ottawa Canals.....		1,244 77
“ St. Peter's Canal.....		26 94
“ Trent Valley Canals.....	142 26	.....
“ Murray Canal.....	120 36	.....
Total.....	\$ 433 10	\$40,620 43
Total decrease.....		<u>40,187 33</u>

In compliance with the renewed request of forwarders and shippers of Montreal for a continuance of the reduction of tolls on certain agricultural products, His Excellency the Governor General in Council on 16th of April, 1894, authorized a reduction of canal tolls, as follows:—

For the season of 1894 the canal tolls for the passage of the following food products, wheat, indian corn, pease, barley, rye, oats, flax-seed and buckwheat for passage eastward through the Welland Canal, shall be ten cents per ton, and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said tolls of ten cents per ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals.

In consequence of the reduced rates of tolls as above, being applicable to the said food products, irrespective of their destination, the reduced rate of ten cents a ton only was collected, and therefore no refunds were made on these articles for 1894.

It may be observed, however, that the reduction of tolls from twenty to ten cents per ton on the articles referred to, for passage through the Welland Canal, amounts to \$40,432.90.

QUANTITY OF GRAIN PASSED DOWN THE WELLAND CANAL.

The quantity of barley, corn, oats, pease, rye and wheat passed down the Welland Canal, from ports west of Port Colborne for a period of thirteen years, is as follows:—

QUANTITY PASSED DOWN TO MONTREAL.	QUANTITY ON WHICH FULL TOLLS WERE PAID.		
		To Ports in Ontario.	Quantity from U.S. Ports.
	Tons.	Tons.	Tons.
1882.....	180,694		63,881
1883.....	186,814	10,650	121,876
1884.....	142,194	12,153	104,537
1885.....	96,569	11,509	117,346
1886.....	203,940	9,881	151,551
1887.....	185,034	11,838	134,868
1888.....	160,358	25,599	169,664
1889.....	267,769	19,075	213,766
1890.....	228,513	16,899	245,932
1891.....	295,509	6,805	202,710
1892.....	261,954	8,942	201,540
1893.....	* 501,806	25,555	222,958
1894.....	273,651	16,699	203,979

The tolls on grain for passage through the Welland Canal, prior to 1884 were 20 cents a ton, since that date, however, reductions have been made by Orders in Council from year to year as follows:—Upon the urgent request of forwarders and others interested in the grain trade, a reduction was made of one-half the usual rate of tolls on grain passing down the Welland Canal and the St. Lawrence Canals to Montreal; and in 1885 tolls were reduced to 2 cents a ton, and thereafter from year to year, including 1891.

In 1892 the tolls were reduced to 2 cents a ton on grain passed down the Welland and St. Lawrence Canals and exported, and in such cases only.

In 1893, by Order in Council of 13th February, the tolls were reduced to 10 cents a ton on grain passing eastward through the Welland Canal irrespective of its destination, and the same rate of tolls for 1894 were allowed by O. C., 16th April, 1894.

The rate through the St. Lawrence Canals, only, 10 cents a ton.

It may be remarked that goods having paid full tolls on the Welland Canal are allowed to pass down the St. Lawrence Canals to Montreal free from payment of any further tolls.

During the last decade the quantity of agricultural products, as above, passed down the Welland and St. Lawrence Canals to Montreal, has increased from 96,569 tons to 273,651 tons; and the quantity passed down the Welland Canal, from United States ports to United States ports, has increased from 117,346 to 203,979 tons.

\* Of the quantity of grain passed down to Montreal there were transhipped at Ogdensburg in 1891, 17,817 tons, in 1892, 4,341 tons, in 1893, 71,445 tons, in 1894, 23,030 tons.

## Department of Railways and Canals.

The quantity of barley, corn, oats, pease, rye and wheat, arrived at Montreal via Grand Trunk and Canadian Pacific Railways for a period of 13 years, is reported as follows :—

	Tons.
For 1882.....	75,026
1883.....	98,672
1884.....	142,231
1885.....	160,821
1886.....	165,613
1887.....	191,760
1888.....	113,794
1889.....	94,943
1890.....	119,208
1891.....	184,410
1892.....	291,680
1893.....	147,610
1894.....	60,666

The quantity of the same articles passed down the whole length of the St. Lawrence Canals to Montreal, for the same period was :—

	Tons.
For 1882.....	230,055
1883.....	263,368
1884.....	174,496
1885.....	134,824
1886.....	272,133
1887.....	237,881
1888.....	166,191
1889.....	275,414
1890.....	242,571
1891.....	320,434
1892.....	302,899
1893.....	532,084
1894.....	288,015

Comparative shipments of grain by the St. Lawrence route, and rail and water via the State of New York, are as follows :—

### QUANTITY OF GRAIN TO SEA-BOARD BY COMPETING ROUTES.

The quantity of grain and pease passed down the whole length of the St. Lawrence Canals to Montreal, is as follows :—

	Tons.
For 1893.....	532,084
1894.....	288,015
<hr style="width: 100%;"/>	
Showing a decrease of.....	244,069

The quantity of grain and pease carried to Montreal via Canadian Pacific and Grand Trunk Railways, is reported as follows :—

	Tons.
For 1893.....	147,610
1894.....	60,666
<hr style="width: 100%;"/>	
Showing a decrease of.....	86,944

The quantity of grain arrived at tide-water by New York canals, is reported as follows :—

	Tons.
For 1893 .....	1,267,113
1894.....	1,163,788

The quantity of grain carried to tide-water by the New York railways, is reported as follows :

	Tons.
For 1893 .. .. .	3,590,513
1894 ... .. .	2,686,440

The increases and decreases for 1894 as compared with 1893 on the several routes, competing for the carrying trade to the sea-board, are as follows :—

	Increase.		Decrease.	
	Tons.	Tons.	Per cent.	Per cent.
On the St. Lawrence Canals.....		244,069		45·87
do Canadian Pacific and Grand Trunk Railways.....		86,944		58·90
do New York Canals.....		103,325		8·15
do do Railways.....		904,073		25·18

By reference to Appendix U, it will be seen that the quantity of freight from ports west of Port Colborne to United States ports, Oswego, Ogdensburg, &c, has increased from 175,455 tons in 1883, to 373,070 tons in 1894, and the quantity to Ontario ports, between Port Dalhousie and Cornwall, has decreased from 184,502 tons in 1883, to 10,681 tons in 1894. The quantity passed down to Montreal shows an increase from 205,394 tons in 1883, to 292,191 tons in 1894.

#### TRANSHIPMENT OF GRAIN.

The quantity of grain passed down the Welland Canal in Canadian and United States vessels to Kingston for eleven years, is as follows :—

In Canadian vessels, there were in—

	Tons.
1884, 111 cargoes, with an aggregate quantity of.....	70,475
1885, 75 do do .....	45,639
1886, 244 do do .....	143,330
1887, 284 do do .....	178,233
1888, 182 do do .....	143,025
1889, 208 do do .....	165,117
1890, 203 do do .....	184,275
1891, 209 do do .....	190,664
1892, 158 do do .....	159,018
1893, 146 do do .....	148,962
1894, 125 do do .....	159,145



## Department of Railways and Canals.

In United States vessels, there were in—

	Tons.
1884, 117 cargoes, with an aggregate quantity of.....	75,787
1885, 79 do do .....	55,982
1886, 97 do do .....	62,222
1887, 19 do do .....	12,477
1888, 60 do do .....	43,667
1889, 114 do do .....	108,358
1890, 35 do do .....	35,560
1891, 77 do do .....	90,153
1892, 89 do do .....	109,812
1893, 257 do do .....	328,269
1894, 84 do do .....	106,236

Two vessels took cargoes of 810 tons through to Montreal intact in 1894, none in 1893. Two in 1892 of 924 tons, and three in 1891 of 1,441 tons. Nineteen vessels lightered a portion of their cargoes in 1894, against 34 in 1893, 25 in 1892, and 44 in 1891. 188 vessels discharged the whole of their cargoes at Kingston in 1894, against 369 in 1893, 220 in 1892 and 293 in 1891.

The quantity of grain transhipped at Port Colborne in 1894 and the three previous years is given below.

The total number of grain laden vessels lightened at this port in 1894 was 59 against 91 the previous year.

The quantity of the grain lightered was as follows:—

Articles.	1890.	1891.	1892.	1893.	1894.
	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat .....	4,310	16,665	68,736	47,558	104,827
Corn .....	773,687	482,802	576,289	759,000	260,657
Rye .....	Nil	13,318	2,467	11,540	Nil
Oats .....	44,294	257,000	102,529	35,353	63,412

The quantity discharged at this port from vessels which did not enter the canal was as follows:—

Articles.	1890.	1891.	1892.	1893.	1894.
	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat .....	Nil	16,628	Nil	Nil	Nil
Corn .....	Nil	Nil	Nil	Nil	Nil
Rye .....	Nil	Nil	Nil	Nil	Nil
Oats .....	Nil	Nil	Nil	Nil	Nil

## WELLAND CANAL.

The total quantity of freight passed on the Welland Canal during the season of 1894 was 1,008,221 tons; of this quantity 18,687 tons were way or local freight.

*East and west bound freight.*

There were 758,783 tons of freight passed eastwards, and 249,438 tons passed westwards.

The total quantity of freight passed through the whole length of the Welland Canal during the season of 1894 was 989,534 tons.

Of this quantity 242,555 tons were west bound and 745,942 east bound freight.

Of the east bound freight Canadian vessels carried 252,104 tons and United States vessels carried 493,838 tons; and of the west bound freight Canadian vessels carried 11,422 tons, and United States vessels carried 232,170 tons.

Of the total quantity of through freight, Canadian vessels carried 263,526 tons, and United States vessels carried 726,008 tons.

## ST. LAWRENCE CANALS.

*East and west bound freight.*

Of the total quantity of freight passed through the canals during 1894 there were 68,417 tons passed eastward and 248,361 tons passed westward.

The total quantity of through freight was 537,982 tons; of this quantity 494,778 tons were east bound and 43,204 tons were west bound.

Of the total quantity of (way) or local freight, 143,639 tons were east bound and 205,157 tons west bound freight.

## THROUGH TRAFFIC BETWEEN MONTREAL AND PORTS ON LAKES ERIE, MICHIGAN, &amp;C.

The total quantity of freight passed eastward and westward through the Welland and St. Lawrence Canals, from Lake Erie to Montreal, during fourteen years, is as follows:

	Eastward, to Montreal. Tons.	Westward, from Montreal. Tons.
1881 . . . . .	169,213	37,190
1882 . . . . .	108,835	24,488
1883 . . . . .	205,394	27,488
1884 . . . . .	168,715	9,425
1885 . . . . .	132,968	16,115
1886 . . . . .	244,514	16,801
1887 . . . . .	213,834	14,075
1888 . . . . .	182,899	19,310
1889 . . . . .	298,197	25,370
1890 . . . . .	231,746	31,951
1891 . . . . .	309,593	14,060
1892 . . . . .	263,144	9,452
1893 . . . . .	508,016	16,545
1894 . . . . .	292,191	9,439

## Department of Railways and Canals.

### FREIGHT FROM UNITED STATES PORTS TO UNITED STATES PORTS.

The total quantity of freight passed eastward and westward through the Welland Canal, from United States ports to United States ports, for a period of fourteen years, is as follows:—

	Eastward. Tons.	Westward. Tons.	Total. Tons.
1881.....	96,266	97,907	194,173
1882.....	110,286	172,520	282,806
1883.....	174,912	257,699	432,611
1884.....	163,998	243,081	407,079
1885.....	168,212	216,297	384,509
1886.....	224,916	239,562	464,478
1887.....	189,427	151,074	340,501
1888.....	221,062	213,689	434,751
1889.....	297,353	266,231	563,584
1890.....	318,259	215,698	533,957
1891.....	306,257	247,543	553,800
1892.....	300,733	240,332	541,065
1893.....	384,559	247,108	631,667
1894.....	361,319	230,948	592,267

The total quantity of freight passed through the Welland Canal from United States ports to United States ports shows a decrease of 39,400 tons as compared with the previous year; and an increase of 398,094 tons as compared with 1881.

The following statement shows the aggregate number of vessels, and the total quantity of freight passed through the Welland Canal, and the quantity passed between United States ports during the year 1867 to 1894 inclusive.

Fiscal Year.	Aggregate number of vessels.	Total quantity transported on the Welland Canal.	Quantity passed from United States ports to United States ports.
	No.	Tons.	Tons.
1867.....	5,405	933,260	458,386
1868.....	6,157	1,161,821	641,711
1869.....	6,069	1,231,903	688,700
1870.....	7,356	1,311,956	747,567
1871.....	7,729	1,478,122	772,756
<i>Season of Navigation.</i>			
1872.....	6,063	1,333,104	606,627
1873.....	6,425	1,506,484	656,208
1874.....	5,814	1,389,173	748,557
1875.....	4,242	1,038,050	477,809
1876.....	4,789	1,099,810	488,815
1877.....	5,129	1,175,398	493,841
1878.....	4,429	968,758	373,738
1879.....	3,960	865,664	284,043
1880.....	4,104	819,934	179,605
1881.....	3,332	686,506	194,173
1882.....	3,334	790,643	282,806
1883.....	3,267	1,005,156	432,611
1884.....	3,138	837,811	407,079
1885.....	2,738	784,928	384,509
1886.....	3,589	980,135	464,478
1887.....	2,785	777,918	340,501
1888.....	2,647	873,800	434,753
1889.....	2,975	1,085,273	563,584
1890.....	2,885	1,016,165	533,957
1891.....	2,594	975,013	553,800
1892.....	2,615	955,554	541,065
1893.....	2,843	1,294,823	631,667
1894.....	2,412	1,008,221	592,267

The total quantity of freight passed through the several divisions of the canals during the season of 1894 is as follows:—

	Farm Stock.	Forest Produce of Wood.	Manu- factures.	Merchan- dise.	Agricultural Products.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland.....	39	145,929	14,172	253,316	594,765	1,008,221
St. Lawrence.....	1,004	115,946	66,655	348,025	355,148	886,778
Chambly.....	284	151,732	18,312	90,463	16,817	277,608
Ottawa.....	971	548,747	196	6,347	5,749	562,010
Rideau.....	9	64,633	3,511	23,547	2,779	94,479
St. Peter's.....		6,269		36,007	13,184	55,460
Murray.....	28	8,360	3,831	4,768	4,901	21,888
Trent Valley.....	25	36,076	25	140	5	36,271

The total quantity of freight moved on the Welland Canal was 1,008,221 tons, of which 594,765 tons were agricultural products.

On the St. Lawrence Canals the total quantity of freight moved was 886,778 tons, of which 355,148 were agricultural products, and 348,025 tons were merchandise.

On the Ottawa Canals the total quantity of freight moved was 562,010 tons; of this quantity 548,747 tons were the produce of the forest.

NORWAY TO CHICAGO.

During the month of May the steamer "Craggs" of Christiansand, Norway, passed up the St. Lawrence and Welland Canals with a cargo of 509 tons of fish from Norway to Chicago, and returned on the 6th June with a cargo of 406 tons of flour and 300 tons of wheat.

STATISTICAL COMPARISON OF VARIOUS UNITED STATES ROUTES.

The statistical comparisons heretofore given in respect to the quantities of the principal articles carried through the Welland Canal, and those carried over routes in the United States, in competition with that work, have been continued to date.

By reference to statement H, as to the quantity of vegetable food carried to tidewater, it will be observed that the quantity carried by the New York Canals was 1,400,129 tons in 1894, and 1,452,563 tons in 1893, against 937,999 in 1892, and 1,092,355 in 1891.

The quantities of vegetable food carried by the New York Central, Erie and New York, West Shore and Buffalo Railways being:—

	Tons.		Tons.
In 1894.....	4,281,056	In 1886.....	*3,802,262
1893.....	5,107,426	1885.....	4,105,594
1892.....	5,913,013	1884.....	3,639,805
1891.....	3,565,381	1883.....	4,422,461
1890.....*	4,336,199	1882.....	3,888,557
1889.....	3,654,984	1880.....	4,732,385
1888.....	3,197,634	1869.....	1,087,809
1887.....	3,847,766		

\* Flour and grain only.

## Department of Railways and Canals.

The following figures are an abstract of the quantities of vegetable food carried to tidewater by the canals and railways of the state of New York, during twenty-six years:—

	Canals.	Railways.	Total.	Proportions by Canals.
	Tons.	Tons.	Tons.	
1869	1,302,613	1,087,809	2,390,342	545
1870	1,295,010	1,766,457	3,061,467	423
1871	1,850,198	2,205,589	4,055,787	456
1872	1,674,320	1,870,614	3,544,934	472
1873	1,745,171	2,036,992	3,782,163	461
1874	1,767,598	2,791,517	4,559,115	387
1875	1,305,550	2,343,241	3,648,791	357
1876	1,064,293	2,875,803	3,940,096	270
1877	1,498,984	2,493,683	3,992,667	375
1878	1,912,734	3,695,764	5,608,498	341
1879	1,833,399	4,353,617	6,187,016	296
1880	2,371,090	4,732,385	7,103,475	333
1881	1,116,561	4,983,722	6,100,283	183
1882	1,118,776	3,885,557	5,004,333	223
1883	1,379,000	4,422,461	5,801,461	237
1884	1,236,986	3,639,805	4,876,791	253
1885	1,063,310	4,105,594	5,168,904	205
1886	1,489,886	3,802,262	5,292,148	281
1887	1,539,403	3,847,766	5,387,169	285
1888	1,166,958	3,197,734	4,364,692	267
1889	1,296,896	3,654,984	4,951,880	262
1890	1,167,901	4,336,199	5,504,100	212
1891	1,092,355	3,565,381	4,657,736	234
1892	937,999	5,913,013	6,851,012	137
1893	1,288,046	5,107,426	6,395,472	201
1894	1,185,275	4,281,056	5,466,331	217

### COMPARATIVE STATEMENT OF TRAFFIC BY RAILWAYS AND CANALS VIA THE STATE OF NEW YORK.

On reference to the returns made by the railways to the state authorities of New York, and to the canal statistics submitted to the state legislature, I find that of the total tonnage of freight carried by the canals and railways, the state canals carried:—

	Per cent.		Per cent.
In 1859	68·9	In 1882	19·0
1869	47·0	1883	18·7
1870	38·9	1884	19·0
1871	38·9	1885	17·1
1872	40·1	1886	16·9
1873	34·9	1887	16·3
1874	31·7	1888	18·8
1875	28·4	1889	15·1
1876	24·6	1890	13·9
1877	28·3	1891	13·4
1878	27·1	1892	9·8
1879	23·7	1893	10·1
1880	25·1	1894	10·2
1881	18·5		

The quantity of freight carried by the canals and railways was less in 1894 by 5,036,821 tons than the quantity carried in 1873 and an increase of 25,463,238 tons over 1869.

The quantities carried were as follows—

	Total Tonnage.	Proportion by Canals.
In 1859.....	5,485,076	·6890
1869.....	12,453,174	·4705
1870.....	15,148,274	·3895
1871.....	15,844,152	·3896
1872.....	16,631,609	·4012
1873.....	18,200,208	·3497
1874.....	18,283,547	·3174
1875.....	17,101,758	·2841
1876.....	16,948,627	·2462
1877.....	17,489,770	·2833
1878.....	19,017,301	·2719
1879.....	22,590,766	·2373
1880.....	25,706,586	·2512
1881.....	27,857,394	·1859
1882.....	28,693,054	·1905
1883.....	30,167,119	·1877
1884.....	26,293,844	·1905
1885.....	27,543,948	·1718
1886.....	31,168,744	·1698
1887.....	34,029,791	·1632
1888.....	26,244,610	·1883
1889.....	35,466,042	·1514
1890.....	37,624,199	·1394
1891.....	38,524,179	·1343
1892.....	43,618,569	·0982
1893.....	42,953,233	·1009
1894.....	37,916,412	·1024

Average freight rates, grain, Chicago to Buffalo:—

Year.	Wheat.	Year.	Wheat.
1878.....	3·1	1888.....	2·7
1879.....	4·7	1889.....	2·5
1880.....	5·7	1890.....	1·9
1881.....	3·2	1891.....	2·5
1882.....	2·5	1892.....	2·2
1883.....	3·5	1893.....	1·6
1884.....	2·1	1894.....	1·2
1885.....	2·0		
1886.....	3·6		
1887.....	4·1		
		Average seventeen years.	2·9

# Department of Railways and Canals

COMPARATIVE Statement of the Amount and Value of Commerce through Saint Mary's Falls Canal, Mich., for the seasons of 1893 and 1894.

	Quantity.		Increase.		Decrease.		Price per Unit.		Total Valuation.	
	1893.	1894.	Amount.	Per cent.	Amount.	Per cent.	1893.	1894.	1893.	1894.
							% cts.	% cts.	% cts.	% cts.
*Vessels.....	12,008	14,491	2,483	21						
Lockages, registered.....	5,553	6,431	878	16						
Tonnage, registered.....	9,849,754	13,110,366	3,260,612	33						
do do freight.....	10,796,572	13,195,366	2,398,794	22						
Passengers.....	18,969	27,236	8,267	44						
Coal (hard).....	3,008,120	532,870			210,936	7	4 75	10,528,420	00	2,531,132
do (soft).....	7,420,674	2,264,314					2 50	29,682,696	00	5,660,785
Flour.....	43,481,652	8,965,773	1,545,099	21	8,612,169	20	3 75	32,611,239	00	33,621,648
Wheat.....	2,405,344	1,545,008			860,336	36	0 64	1,346,332	64	22,316,469
do Grain (other than wheat).....	57,046	60,659			37,793	32	0 50	2,852,300	00	1,803,350
Manufactured iron.....	32,406	237,461	8,731	4			13 50	550,902	00	331,452
Pig iron.....	228,730	99,573	12,043	14			1 00	228,730	00	237,461
Salt.....	87,530	6,545,876	2,534,320	63			200 00	17,506,000	00	19,914,600
Copper.....	4,014,566	722,788	134,243	23			2 60	14,050,946	00	17,027,077
Iron ore.....	588,545	2,470					16 00	10,593,810	00	11,564,008
Lumber.....	2,470	412					112 00	379,861	30	46,144
Silver ore and bullion.....	19,326	451,155	36,005	9	2,058	83	10 00	194,260	00	214,170
Building stone.....	415,180						60 00	24,910,800	00	27,071,100
†Unclassified freight.....										
<b>Totals.....</b>										
			10,208					145,436,956	94	143,114,501
			3,676							
			607							
			14,491							

\*Steamers..... 327 tons.  
 Sails..... 212 do  
 Unregistered craft.....  
 †Included in unclassified freight for 1893.  
 Wool..... 1,468 tons.  
 Hides..... 382 do

Total valuation of produce and merchandise carried through the canal is estimated as follows for the years named :

Valuation for 1885	.....	\$	53,413,472	13
do	1886	.....	69,080,071	95
do	1887	.....	79,031,757	78
do	1888	.....	82,156,019	97
do	1889	.....	83,732,527	15
do	1890	.....	102,214,948	70
do	1891	.....	128,178,208	51
do	1892	.....	135,117,267	10
do	1893	.....	145,436,956	94
do	1894	.....	143,114,501	97

The canal was open to navigation during the season of	1889.....	234	days
do	do	1890.....	228 do
do	do	1891.....	225 do
do	do	1892.....	233 do
do	do	1893.....	219 do
do	do	1894.....	234 do

The average number of vessels passing per day for the whole season of 1894 was 62.

R. DEVLIN,  
*Compiler of Canal Statistics.*



## Department of Railways and Canals.

### EXPORTS by Lake from the port of Chicago during 1894.

	UNITED STATES VESSELS.		FOREIGN VESSELS.		TOTALS.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
		\$ cts.		\$ cts.		\$ cts.	
Corn .....	Bush.	1,649,408	721,554 21			1,649,408	721,554 21
Wheat .....	"	1,505,733	871,111 23	38,729	19,864 50	1,544,462	890,975 73
Flour .....	Brls.			4,440	10,000 00	4,400	10,000 00
Beef .....	"			2	60 00	2	60 00
Merchandise .....	Pkgs.	3	8 10	2	40 00	5	48 10
<b>Totals</b> .....							
		1,592,673 54		29,964 50		1,622,638 04	

### SHIPMENTS of Grain (in Transit and Export) by Lake from Chicago during 1894.

	CORN, BUSHELS.			OATS, BUSHELS.	WHEAT, BUSHELS.	TOTALS.
	Transit.	Export.	Total.	Transit.	Export.	
	Christiansand, Norway .....					
Collingwood, Ont. ....				45,024		45,024
Kingston, Ont. ....		1,443,870	1,443,870		1,534,462	2,978,332
Midland, Ont. ....	52,512	104,485	156,997	420,237		577,234
Point Edward, Ont. ....	560,952		560,952	62,812		623,764
Prescott, Ont. ....		65,053	65,053			
Sarnia, Ont. ....	44,682		44,682	486,454		531,136
Walkerville, Ont. ....		36,000	36,000			
<b>Totals</b> .....	658,146	1,649,408	2,307,554	1,014,527	1,544,462	4,866,543

GRAIN FREIGHT BY LAKE AND ERIE CANAL.

The following were the current rates of freight on wheat and corn from Chicago to Buffalo, Ogdensburg or Kingston, and to Montreal (steam); also to New York by Lake and Erie Canal, for each week during the season of navigation in 1894 (from Report, Board of Trade Chicago):—

1894.	TO BUFFALO.		TO KINGSTON.		TO MONTREAL, (STEAM.)		ERIE CANAL, BUFFALO TO NEW YORK		CHICAGO TO NEW YORK, LAKE AND CANAL, INCLUDING BUFFALO CHARGES.	
	Wheat per Bushel	Corn per Bushel	Wheat per Bushel	Corn per Bushel	Wheat per Bushel	Corn per Bushel	Wheat per Bushel.	Corn per Bushel.	Wheat per Bushel.	Corn per Bushel.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
April 7...	1½	1¼	3¼	3	5¼	5¼				
do 14...	1½	1¼								
do 21...	1½	1	3	5½						
do 28...	1½	1	3	5½						
May 5...	1½	1¼	3½	2½	5½	4½	3¼	3	5½	5½
do 12...	1½	1		2½		4½	3	2½	5½	4½
do 19...	1½	1		2½		4½	3	2½	5½	4½
do 26...	1½	1		2½		4½	3	2½	5½	4½
June 2...	1½	1¼		2½		4½	3	2½	5½	4½
do 9...	1½	1¼					3	2½	5½	4½
do 16...	1½	1¼		2½		4½	2½	2½	5½	4½
do 23...	1½	1					2½	2½	5½	4½
do 30...	1½	1½	2½		5		3	2½	5½	4½
July 7...	1	1	2½		5		3	2½	5½	4½
do 14...	1	1					3½	3	5½	4½
do 21...	1	1	2½		4½		3½	3	5½	4½
do 28...	1	1	2½		4½		3½	3½	5½	4½
Aug. 4...	1	1	2½ to 2¾	2½	4½ to 4¾		3½	3½	5½	5
do 11...	1	1	2½		4½		3½	3½	5½	4½
do 18...	1	1	2½		4½		3½	3	5½	4½
do 25...	1½	1	2½		4½		3½	3	5½	5½
Sep. 1...	1½	1¼	2½ to 2¾		5 to 5½		3½	3	5½	5½
do 8...	1½	1¼			5½		3½	3½	5½	5½
do 15...	1½	1¼	2½		5½		4	3½	6	5½
do 22...	1½	1¼	2½		5½		3½	3½	5½	5½
do 29...	1½	1¼	2½		5½		3	2½	5½	5½
Oct. 6...	1½	1¼					2½	2½	5½	4½
do 13...	1½	1¼		2½		4½	2½	2½	5	4½
do 20...	1	1		2½		4½	3	2½	4½	4½
do 27...	1	1		2½		4½	3	2½	4½	4½
Nov. 3...	1	1		2½		4½	3	2½	4½	4½
do 10...	1	1					3	2½	4½	4½
do 17...	1	1					3	2½	4½	4½
do 24...	1½	1½					3	2½	4½	4½
Dec. 1...	2½	2½					3	2½	6	6
do 8...	3¼	3								
do 15...	3¼	3								

## Department of Railways and Canals.

*Lake Freights from Chicago to Buffalo on Wheat and Corn; (as reported by the Secretary of the "Merchants' Exchange," Buffalo, N.Y.)*

STATEMENT showing the dates of the changes in the ruling rates of lake freights, on wheat and corn from Chicago to Buffalo, during 1894.

1894.	Wheat, bush.	Corn, bush.	1894.	Wheat, bush.	Corn, bush.
Opening.	Cts.	Cts.	Opening.	Cts.	Cts.
April 2.....		1 $\frac{3}{4}$	Aug. 23.....	1	1
do 13.....		1 $\frac{1}{4}$	do 24.....	1 $\frac{1}{8}$ to 1 $\frac{1}{4}$	1 to 1 $\frac{1}{4}$
do 16.....		1	do 26.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 25.....	1 $\frac{1}{4}$	1	Sept. 6.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$ to 1 $\frac{3}{8}$
do 26.....	1 $\frac{3}{4}$ to 2	1 to 1 $\frac{1}{4}$	do 8.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 27.....	1 $\frac{3}{8}$ to 1 $\frac{3}{4}$	1 $\frac{1}{4}$ to 1 $\frac{1}{2}$	do 15.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 30.....	1 $\frac{1}{2}$	1 $\frac{1}{4}$	do 17.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
May 5.....	1 $\frac{1}{2}$	1 $\frac{1}{8}$	do 18.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 7.....	1 $\frac{1}{4}$	1	do 20.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 8.....	1 $\frac{1}{4}$	1 $\frac{1}{4}$	do 21.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 9.....	1 $\frac{1}{4}$	1	do 26.....	1 $\frac{1}{8}$	1 $\frac{3}{8}$
do 10.....	1 $\frac{1}{4}$	1 $\frac{1}{8}$	Oct. 3.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 11.....	1 $\frac{1}{4}$	1	do 5.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 16.....	1 $\frac{1}{4}$	1 $\frac{1}{4}$	do 6.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 17.....		1 to 1 $\frac{1}{4}$	do 8.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 18.....		1 $\frac{1}{4}$	do 13.....	1 $\frac{1}{8}$	1
do 19.....	1 $\frac{3}{8}$	1 $\frac{1}{4}$	do 17.....	1	1
do 23.....	1 $\frac{1}{2}$	1 $\frac{1}{4}$	do 25.....		1 $\frac{1}{8}$ to 1 $\frac{1}{4}$
do 24.....		1 $\frac{1}{4}$	do 26.....	1 $\frac{1}{8}$	1 $\frac{1}{4}$
do 29.....		1 $\frac{1}{8}$	do 27.....		1 $\frac{1}{8}$ to 1 $\frac{1}{4}$
June 5.....		1 $\frac{1}{4}$ to 1 $\frac{1}{2}$	do 29.....	1 to 1 $\frac{1}{8}$	1 to 1 $\frac{1}{4}$
do 6.....		1 to 1 $\frac{1}{8}$	do 30.....	1 to 1 $\frac{1}{8}$	1 to 1 $\frac{1}{4}$
do 14.....	1 $\frac{1}{4}$	1 to 1 $\frac{1}{8}$	Nov. 3.....	1 to 1	1 to 1
do 16.....		1	do 5.....		1
do 18.....	1 $\frac{1}{4}$	1	do 13.....		1 $\frac{1}{4}$
do 21.....		1 to 1 $\frac{1}{4}$	do 16.....	1 $\frac{1}{4}$	1 $\frac{1}{4}$
do 23.....	1 $\frac{1}{8}$ to 1 $\frac{1}{4}$	1	do 19.....		1 $\frac{1}{8}$ to 1 $\frac{1}{4}$
do 25.....	1 $\frac{1}{8}$	1	do 21.....		1 $\frac{1}{2}$ to 1 $\frac{1}{4}$
do 29.....	1	1	do 23.....	1 $\frac{1}{2}$	1 $\frac{1}{4}$
July 13.....	1 to 1 $\frac{1}{8}$	1 to 1 $\frac{1}{4}$	do 28.....	2 bid	2 bid
do 31.....	1 to 1	1 to 1	Dec. 1.....		2 $\frac{1}{2}$
Aug. 9.....	1	1	do 3.....		3
do 10.....	1 to 1	1 to 1	do 4 to close.....	3	3
do 14.....	1 to 1	1 to 1			
do 15.....	1	1			
do 16.....	1 to 1	1 to 1			
do 17.....	1 to 1	1 to 1			
do 18.....	1 to 1	1 to 1			
do 22.....	1 $\frac{1}{4}$	1			

NOTE.—Oats ranged from  $\frac{3}{4}$  cent to 1 $\frac{1}{4}$  cents per bushel. Corn from Chicago to Kingston ranged from 2 $\frac{1}{2}$  to 3 cents and wheat from 2 $\frac{1}{2}$  to 3 cents per bushel during the season. Corn to Port Huron, October 6th at 1 $\frac{1}{4}$  cents and to Ogdensburg in November, 3 $\frac{1}{2}$  to 4 $\frac{1}{2}$  cents per bushel. Rates from Milwaukee about the same as from Chicago.

## AVERAGE LAKE FREIGHTS.

The following statement shows the average rates of lake freights on wheat and corn between Chicago and Buffalo during each month in the past ten years, the highest and lowest rate on wheat in each year, and the average rate on wheat each year, in cents, per bushel:—

(Per Report of the Secretary of Merchants' Exchange, Buffalo).

Grain, Bushels.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1885 { Wheat.....	2.1	1.3	1.3	1.8	1.6	3.1	3.2
{ Corn.....	1.8	1.2	1.1	1.5	1.4	2.2	2.8
Highest rate, wheat, 1885, 3½c.; lowest, 1.1c.; average for the season, 2c.							
1886 { Wheat.....	3.1	2.7	2.7	3.2	4.5	4.8	4.3
{ Corn.....	2.8	2.5	2.5	2.9	4.2	4.6	4.0
Highest rate, wheat, 1886, 5½c.; lowest, 2c.; average for the season, 3.6c.							
1887 { Wheat.....	3.4	5.1	3.8	3.5	4.1	4.7	3.9
{ Corn.....	3.1	4.7	3.5	3.3	3.8	4.4	3.6
Highest rate, wheat, 1887, 6c.; lowest, 3c.; average for the season, 4.1c.							
1888 { Wheat.....	2.1	1.9	2.2	3.2	3.5	2.4	2.5
{ Corn.....	1.8	1.7	1.9	2.9	3.2	2.1	2.3
Highest rate, wheat, 1888, 4c.; lowest, 2c.; average for the season, 2.7c.							
1889 { Wheat.....	2.2	2.0	2.1	2.7	3.0	3.0	2.5
{ Corn.....	2.0	1.8	1.9	2.4	2.7	2.7	2.3
Highest rate, wheat, 1889, 3.6c.; lowest, 2c.; average for the season, 2.5c.							
1890 { Wheat.....	1.8	2.2	2.3	1.5	2.0	1.8	2.0
{ Corn.....	1.6	2.0	2.0	1.3	1.8	1.6	1.8
Highest rate, wheat, 1890, 2½c.; lowest, 1.5c.; average for the season, 1.9c.							
1891 { Wheat.....	1.4	1.2	2.1	2.7	3.3	2.2	4.1
{ Corn.....	1.2	1.1	2.0	2.5	3.0	2.1	3.8
Highest rate, wheat, 1891, 5½c.; lowest, 1c.; average for this season, 2.4c.							
1892 { Wheat.....	1.9	1.8	2.0	2.3	2.3	2.3	2.6
{ Corn.....	1.7	1.6	1.8	2.1	2.1	2.1	2.3
Highest rate, wheat, 1892, 3c.; lowest, 1c.; average for the season, 2.2c.							
1893 { Wheat.....	1.3	1.8	1.2	1.3	1.7	2.1	2.0
{ Corn.....	1.2	1.6	1.1	1.2	1.5	1.9	1.8
Highest rate, wheat, 1893, 2¾c.; lowest, 1c.; average for the season, 1.6c.							
1894 { Wheat.....	1.4	1.2	0.9	1.0	1.4	1.1	1.3
{ Corn.....	1.2	1.1	0.9	0.9	1.3	1.0	1.3
Highest rate, wheat, 1894, 3c.; lowest, ¾c.; average for the season, 1.2c.							

## Department of Railways and Canals.

*Lake Freights from Duluth to Buffalo on Wheat (as reported by the Secretary of the Merchants' Exchange, Buffalo, N. Y.)*

The following statement shows the weekly ruling lake freight rates on wheat from Duluth to Buffalo, during the season of 1894:—

1894.	Wheat. Bushels.	1894.	Wheat. Bushels.
	Cents.		Cents.
April 1 to 21.....	Not quoted.	Week ending Aug. 11.....	1½
Week ending April 28.....	2	do do 18.....	1½
do May 5.....	2½	do do 25.....	2
do do 12.....	1¾ to 2¼	do Sept. 1.....	2¼
do do 19.....	2¼	do do 8.....	2¼ to 2½
do do 26.....	2¼	do do 15.....	2¼
do June 2.....	2¼ to 2½	do do 22.....	2¼
do do 9.....	2¼ to 2½	do do 29.....	2½
do do 16.....	2¼	do Oct. 6.....	2½
do do 23.....	1½	do do 13.....	2½ to 3
do do 30.....	1½ to 1½	do do 20.....	2½
do July 7.....	1¼	do do 27.....	2½
do do 14.....	1¼	do Nov. 3.....	3
do do 21.....	1½ to 1½	do do 10.....	2½
do do 28.....	1½	do do 17.....	2½
do Aug. 4.....	1½	do do 24 to close.....	1½

In 1885 the range of freight on wheat, Duluth to Buffalo, was 1½ to 5 cents; in 1886, 3¼ to 8 cents; in 1887, 5 to 8 cents; in 1888, 2 to 5 cents; in 1889, 2 to 5 cents; in 1890, 2 to 5 cents; in 1891, 1½ to 9½ cents; in 1892, 2¼ to 4 cents; in 1893, 1¼ to 3½ cents; and in 1894, 1¼ to 3 cents a bushel.

Wheat was shipped to Kingston, Ontario, per bushel during the season of 1887 at 6¼ to 7¾ cents; in 1888, at 4 to 5 cents; in 1889, at ———; in 1890, 5¾, 5½, 4½, 4¼, 4 cents; in 1891, during May, 3¾, 3½, 3, 2½ cents, during June, 3 cents, and on July 25th, 2½ cents; in 1892, 5 cents, in April, 5, 5½ cents, in May, 4 cents, in June, 4½ cents, in July, 3 cents, in August, 6 cents, in October, 6¼ cents; in 1893, ranged from 5½ to 4½ cents in April, 4½ to 4¾ cents, in May, 4 to 3½ cents, in June, 2¾ to 3 cents, in July, 3½ to 3¾ cents, in September, no figures quoted after that date; and in 1894, ranged from 3¼ to 3½ cents in May; 3½ cents in June; 2½ cents in July; 2½ to 3¼ cents in August; 4 cents in September; and 4¼ cents in October. On August 25th and November 3rd, 1894, wheat to Ogdensburg at 3¼ cents and 4½ cents, respectively.

The first arrivals or departure by lake at Duluth in 1894, on April 20th; in 1893, on May 8th; in 1892, on April 21st; in 1891, on April 30th; in 1890, on April 23rd; in 1889 on April 20th; in 1888, on May 12th; in 1887, on May 8th; and in 1886, on May 4th.

LAKE FREIGHT RATES FROM TOLEDO TO BUFFALO ON WHEAT.

The following statement shows the ruling rates of lake freights on wheat from Toledo to Buffalo during the season of 1894, on the dates specified; (as reported by the Secretary of the Merchants' Exchange, Buffalo):—

Date, 1894.	Wheat, bush.	Date, 1894.	Wheat, bush.
	Cts.		Cts.
Opening to May 10.....	1½	September 14th to November 16th....	1½
May 10th to July 11th.....	1½	November 17th to close.....	2
July 12th to September 13th.....	1		

The range for 1886 was 1½ to 3 cts.; for 1887, 2¼ to 3 cts.; for 1888, 1½ to 2½ cts.; for 1889, 1¾ to 2 cts.; for 1890, 1½ to 2 cts.; for 1891, 1 to 3 cts.; for 1892, 1½ to 2½ cts.; for 1893, 1 to 2 cts.; and for 1894, 1 to 2 cts. per bushel.

From Toledo to Ogdensburg, wheat and corn shipped at 6 to 7 cents in 1887; at 4½ to 6 cents for wheat, and 5 cents for corn in 1888; and 5 to 5½ cents for wheat in 1889, per bushel. From Toledo, on October 8th, 1887, corn shipped to Kingston at 3½ cents, and on November 12, at 4½ cents per bushel. In 1888, corn, Toledo to Kingston at 4½ to 3 cents, and in 1891, rye, Toledo to Kingston, at 3 cents per bushel. From Toledo on June 2nd, 1887, wheat shipped to Montreal by propeller, at 6½ cents; on June 14th, corn at same price; but on September 26th, the rate on corn was only 5 cents per bushel. In 1888, corn, Toledo to Montreal at 6 to 5½ cents, and wheat at 5½ cents per bushel. From 1889 to 1894, no shipments to Montreal or other places in Canada reported.

CANAL FREIGHTS FROM BUFFALO TO NEW YORK.

The following table shows the changes in the ruling rates of freight to New York from Buffalo, on the days specified in 1894:—(As reported by the Secretary, Merchant's Exchange, Buffalo.)

Date.	Wheat, bush.	Corn, bush.	Date.	Wheat, bush.	Corn, bush.
1894.	Cts.	Cts.	1894.	Cts.	1894.
May 1.....	3½	3	Sept. 24.....	3½	3
do 10.....	3	2¾	do 26.....	3	2½
June 15.....	2¾	2½	Oct. 1.....	3	2½
do 27.....	3	2¾	do 2.....	3 to 2½	2¾ to 2½
July 9.....	3½	3	do 5.....	2½	2½
do 26.....	3½	3½	do 8.....	2¾	2½
Aug. 15.....	3½	3	do 10.....	2¾ to 2½	2½ to 2½
Sept. 8.....	3½	3½	do 12.....	2½	2½
do 12.....	3½ to 4	3½ to 3½	do 18.....	2½ to 3	2½ to 2½
do 13.....	4	3½	do 19 to close.....	3	2½
do 19.....	3½	3½			

Freight on oats varied from 1¾ to 2¾ cents per bushel.

Pine lumber, per 1,000 feet, was carried from Buffalo and Tonawanda to New York as follows: Opened at \$2.00; changed on May 3rd to \$1.90; October 2nd, \$1.75; and November 7th to close, \$2.00. Rates to Albany, 50 cents per 1,000 feet, less than preceding figures.

# Department of Railways and Canals.

## AVERAGE CANAL FREIGHTS.

### BUFFALO TO NEW YORK.

The following statement shows the average rates of canal freights on wheat and corn between Buffalo and New York during each month in the past ten years, and the highest and lowest rates on wheat, and average rate on wheat in each:—

Grain.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1885 { Wheat.....	4.2	3.1	3.0	3.7	3.5	4.2	5.0
1885 { Corn.....	3.8	2.9	2.8	3.3	3.2	3.9	4.5
Highest rate, wheat, 1885, 6c. ; lowest, 3c. ; average for the season, 3.8c.							
1886 { Wheat.....	5.7	3.8	4.0	5.4	6.0	5.5	4.8
1886 { Corn.....	5.1	3.4	3.6	4.8	5.5	5.0	4.5
Highest rate, wheat, 1886, 6.5c. ; lowest, 3c. ; average for the season, 5c.							
1887 { Wheat.....	5.1	4.5	3.8	4.0	4.5	4.8	5.8
1887 { Corn.....	4.6	4.1	3.4	3.6	4.1	4.4	5.3
Highest rate, wheat, 1887, 7c. ; lowest, 3.5c. ; average for the season, 4.6c.							
1888 { Wheat.....	3.4	2.5	2.5	4.1	3.9	3.7	3.5
1888 { Corn.....	3.1	2.3	2.3	3.8	3.6	3.4	3.2
Highest rate, wheat, 1888, 4.5c. ; lowest, 2c. ; average for the season, 3.4c.							
1889 { Wheat.....	4.0	3.8	4.0	4.4	5.0	5.0	5.0
1889 { Corn.....	3.6	3.4	3.6	3.9	4.5	4.5	4.4
Highest rate, wheat, 1889, 5c. ; lowest, 3.7c. ; average for the season, 4.8c.							
1890 { Wheat.....	3.9	3.8	3.6	3.8	3.9	4.0	3.5
1890 { Corn.....	3.5	3.4	3.2	3.4	3.5	3.6	3.1
Highest rate, wheat, 1890, 4.2c. ; lowest, 3c. ; average for the season, 3.8c.							
1891 { Wheat.....	2.8	2.9	2.8	3.8	4.2	4.6	4.0
1891 { Corn.....	2.5	2.6	2.5	3.5	3.8	4.2	3.6
Highest rate, wheat, 1891, 4.7c. ; lowest, 2.5c. ; average for the season, 3.5c.							
1892 { Wheat.....	2.7	2.2	2.4	3.0	3.8	4.7	4.6
1892 { Corn.....	2.4	2.0	2.2	2.6	3.4	4.4	4.3
Highest rate, wheat, 1892, 6c. ; lowest, 2.4c. ; average for the season, 3.5c.							
1893 { Wheat.....	4.8	4.8	4.6	4.6	4.0	4.7	4.8
1893 { Corn.....	4.4	4.4	4.3	4.2	3.6	4.3	4.5
Highest rate, wheat, 1893, 5c. ; lowest, 3.6c. ; average for the season, 4.6c.							
1894 { Wheat.....	3.1	2.9	3.3	3.4	3.6	2.9	3.0
1894 { Corn.....	2.8	2.6	3.0	3.1	3.3	2.6	2.7
Highest rate, wheat, 1894, 4c. ; lowest, 2.6c. ; average for the season, 3.2c.							

NOTE.—Canal free of tolls.

## FREIGHT, TOLLS, ELEVATING AND STORAGE RATES COMPARED.

The following statement shows the receipts of grain and flax-seed at Buffalo, the average canal freight on wheat, and the tolls on wheat to New York, and the elevating and storage rates at Buffalo for a series of year:—(as reported by Secretary, Merchants' Exchange, Buffalo.)

Year.	Grain received.	Average Canal Freight on Wheat.	Tolls on Wheat.	Elevating, including Storage.
	Bush.	Cts.	Cts.	Cts.
1870 .....	32,208,039	11·2	3·1	1½
1871 .....	61,319,313	12·6	3·1	1½
1872 .....	58,703,666	13·0	3·1	1½
1873 .....	65,498,955	11·4	3·1	1½
1874 .....	55,660,198	10·0	3·1	1½
1875 .....	52,833,451	7·9	2·0	1
1876 .....	44,207,121	6·6	2·0	1
1877 .....	61,822,292	7·4	1·0	1
1878 .....	78,828,443	6·0	1·0	1
1879 .....	75,089,768	6·8	1·0	1
1880 .....	105,133,009	6·5	1·0	1
1881 .....	56,389,827	4·7	1·0	1
1882 .....	51,501,503	5·4	1·0	1
1883 .....	65,722,080	4·9	None.	
1884 .....	58,011,800	4·2	do	
1885 .....	52,671,090	3·8	do	
1886 .....	75,570,850	5·0	do	
1887 .....	87,073,570	4·6	do	
1888 .....	73,977,390	3·4	do	
1889 .....	92,290,550	4·8	do	
1890 .....	91,994,680	3·8	do	
1891 .....	135,315,510	3·5	do	
1892 .....	138,872,560	3·5	do	
1893 .....	140,796,410	4·6	do	
1894 .....	105,435,577	3·2	do	

NOTE.—Prior to 1870 tolls 6·21 cents per bushel, and the elevating charge 2 cents per bushel.



# Department of Railways and Canals.

## AVERAGE FREIGHT CHARGES PER BUSHEL

For the transportation of wheat and corn from Chicago to New York for a series of years.

(From Report of Board of Trade, Chicago.)

	CORN.			WHEAT.		
	By lake and canal.	By lake and rail.	By all rail.	By lake and canal.	By lake and rail.	By all rail.
1858	127		3619	1550		3861
1859	1570		3248	1663		3480
1860	a 0833		3248	a 095		3480
1861	a 1062		3881	a 1210		4158
1862	a 0957		4480	a 1062		4800
1863	a 063		4592	a 072		4920
1864	a 09		5600	a 0952		60
1865	a 0864		4188	a 0894		4488
1866	a 1075		4312	a 1377		4620
1867	a 0511		4176	a 08		4475
1868	a 0604		3532	a 0802		3784
1869	a 0584	2355	3320	a 0651	2520	3557
1870	a 16	2220	28	a 0677	2250	30
1871	a 0754	2372	2968	a 0687	2542	3180
1872	a 1072	2660	3266	a 1110	2950	3499
1873	a 0816	2298	2893	a 0917	2461	3102
1874	a 0382	1388	2450	a 0400	1709	2625
1875	a 034	1303	2240	a 0378	1389	2400
1876	b 0875	1079	1574	b 0982	1136	1686
1877	b 0959	1406	1890	b 1109	1546	2050
1878	b 0883	1053	1652	b 0996	1209	1770
1879	b 1049	1220	1456	b 1187	1313	1774
1880	b 1341	1443	1748	b 1313	1580	1980
1881	b 0777	0942	1340	b 0867	1049	1440
1882	b 0672	1028	1350	b 0723	1091	1447
1883	b 0803	11	1512	b 0901	1163	1620
1884	b 0655	085	1232	b 07	10	1320
1885	b 063	0801	1232	b 0654	0902	1320
1886	b 0845	1120	14	b 0910	12	1500
1887	b 0850	1120	1470	b 0950	12	1575
1888	b 0671	1026	1354	b 0705	1114	1450
1889	b 0632	0819	126	b 0692	0897	1500
1890	b 0593	0732	1136	b 0676	0852	1430
1891	b 0632	0753	1400	b 0695	0857	1500
1892	b 0595	0721	1296	b 0645	0759	1380
1893	b 0718	0797	1365	b 0766	0848	1463
1894	b 0493	0650	1232	b 0511	0700	1320

a To Buffalo only. b Including charges and tolls.

## FOREIGN FREIGHT RATES.

ANNUAL average Freight Rates on Grain, Flour and Provisions (per 100 lbs.), from Chicago to European Ports, by all Rail to Sea-board and thence by steamers.

Shipped to	Articles.	1894.	1893.	1892.
		\$	\$	\$
Liverpool	Grain	3250	3410	3287
do	Sacked flour	3316	3513	3625
do	Provisions	4406	4547	4575
Glasgow	Grain	3463	3585	3550
do	Sacked flour	3503	3625	3906
do	Provisions	4659	4928	4969
London	Grain	3288	3760	3462
do	Sacked flour	3493	3794	3681
do	Provisions	4575	4828	4688
Antwerp	do	4688	4828	5025
Hamburg	do	5000	5250	5000
Amsterdam	do	5000	5000	5500
Rotterdam	do	5000	5000	5500
Copenhagen	do	5531	5531	6094
Stockholm	do	6656	6656	7219
Stettin	do	5531	5531	6094
Bordeaux	do	6250	6000	6200

Department of Railways and Canals.

LAKE FREIGHTS ON COAL FROM BUFFALO TO CHICAGO AND OTHER PORTS.

The following statement shows the ruling freight rates on coal per net ton, in cents, from Buffalo to the Ports named, during the season of 1894, for the week ending on the dates specified.

1894 Week ending.	Chicago.	Milwaukee.	Duluth and Superior Ports.	Green Bay.	Gladstone.	Sheogan.	Toledo.	Detroit.	Racine.	Saginaw.	Bay City.	Washburn.	Ashland.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
April 7	25	25	25	25	25	25	25	25	25	25	25	25	25
do 14	25	25	25	25	25	25	25	25	25	25	25	25	25
do 21	25	25	25	25	25	25	25	25	25	25	25	25	25
do 28	25	25	15	15	15	15	25	25	30	25	25	25	25
May 5	25	25	15	15	15	15	25	25	25	25	25	25	25
do 12	35	35	15	15	15	35	25	25	25	25	25	25	25
do 19	35 to 40	35	15	15	15	15	25	25	25	25	25	25	25
do 26	40 to 45	40	15	40	15	15	25	25	25	25	25	25	25
do 29	45	40	15 to 25	40	15	15	25	25	25	25	25	25	25
June 9	45	40	15 to 25	40	15 to 25	40	25	25	25	25	25	25	25
do 16	45	40	25	40	25	25	25	25	25	25	25	25	25
do 23	45	40	25	40	25	25	25	25	25	25	25	25	25
do 30	45	40	25	40	25	40	25	25	25	25	25	25	25
July 7	45	40	25	40	25	25	25	25	25	25	25	25	25
do 14	45	40	25	40	25	25	25	25	25	25	25	25	25
do 21	45	40	25	40	25	25	25	25	25	25	25	25	25
do 28	45	40	25	40	25	25	25	25	25	25	25	25	25
Aug. 4	45 to 50	40 to 50	25 to 30	40	25	25	25	25	25	25	25	25	25
do 11	50	50	30	50	30	30	25	25	25	25	25	25	25
do 18	50	50	30	50	30	30	25	25	25	25	25	25	25
do 25	50	50	30	50	30	30	25	25	25	25	25	25	25
Sept. 1	50	50	30	50	30	30	25	25	25	25	25	25	25
do 8	50	50	30	50	30	30	25	25	25	25	25	25	25
do 15	50	50	30	50	30	30	25	25	25	25	25	25	25
do 22	50 to 55	50	30	50	30	30	25	25	25	25	25	25	25
do 29	55	50	30	50	30	30	25	25	25	25	25	25	25
Oct. 6	55	50	30	50	30	30	25	25	25	25	25	25	25
do 13	55 to 60	50	20	50	20	20	25	25	25	25	25	25	25
do 20	60 to 70	55 to 55	20	50	20	20	25	25	25	25	25	25	25
do 27	70	65 to 65	30	50	30	30	25	25	25	25	25	25	25
Nov. 3	70 to 60	65 to 65	30	50	30	30	25	25	25	25	25	25	25

LAKE FREIGHTS ON COAL FROM BUFFALO TO CHICAGO AND OTHER PORTS.

The following statement shows the ruling freight rates on coal per net ton, in cents, from Buffalo to the Ports named, during the season of 1894, for the week ending on the dates specified.—*Concluded.*

1894 Week ending.	Chicago.	Milwaukee.	Duluth and Superior Ports.	Green Bay.	(Madstone.	Shebogan.	Toledo.	Detroit.	Racine.	Saginaw.	Bay City.	Washburn.	Ashland.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Nov. 10	60	55	30		30		25		75	40	40		
do 17	60	55	30		30		25		75	40			
do 24	60	55	30		30		25						
Dec. 1	60 to 75	55 to 75	35		35		25						
do 8 to close.	75 to 80	75 to 80					25						

NOTE.—All coal carried on the lakes is loaded and unloaded free of expense to the vessel.

# Department of Railways and Canals

**TOTAL VALUES of Merchandise Received from British North America for Immediate Transit across United States Territory, for Immediate Transhipment in Ports of the United States to British North America, and so shipped, during each year from 1873 to 1894 inclusive.**

YEAR ENDING 30TH JUNE.	COUNTRIES FROM WHICH RECEIVED.					COUNTRIES TO WHICH SHIPPED.				
	British North America.					British North America.				
	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba, and the Northwest Territories.	British Columbia.	Newfoundland and Labrador.	Total.	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba, and the Northwest Territories.	British Columbia.	Newfoundland and Labrador.	Total.
1873.	465,289	12,894,164	5,240	.	13,394,693	5,282,290	21,320,174	181,720	.	26,784,184
1874.	449,655	13,616,344	97,691	.	14,163,690	7,150,086	19,843,169	.	.	27,310,739
1875.	443,570	17,342,933	256,074	.	18,042,577	8,999,596	20,283,639	.	.	27,800,295
1876.	261,443	22,134,275	195,047	1,137	22,591,902	9,102,600	14,658,358	.	94	24,419,888
1877.	160,658	12,092,619	218,418	.	12,471,695	2,879,422	15,551,238	.	2,475	18,977,153
1878.	163,978	11,627,114	412,966	.	12,204,058	951,268	11,436,470	.	684	12,912,686
1879.	194,129	11,606,832	280,079	55	12,081,935	880,530	11,520,877	.	2,847	12,889,587
1880.	194,129	16,782,315	137,271	.	17,134,717	1,643,716	14,866,663	.	288	17,042,103
1881.	171,383	16,758,108	72,555	.	17,002,046	1,778,836	20,857,827	.	333	23,366,264
1882.	164,990	28,265,083	113,018	87	28,543,178	2,732,665	34,005,845	.	1,190	37,595,484
1883.	561,791	29,294,031	36,973	25	29,802,820	2,455,557	35,878,389	.	7,335	39,312,568
1884.	656,233	12,574,953	188,041	.	13,419,227	1,740,900	19,717,466	.	5,186	22,930,385
1885.	933,806	12,280,483	308,691	633	13,523,613	1,635,442	16,448,942	.	6,174	19,700,458
1886.	1,165,973	9,303,864	359,104	.	10,861,620	2,040,298	16,369,429	.	70	20,241,079
1887.	1,684,730	9,606,175	213,816	32,079	11,504,721	1,621,748	19,930,296	.	1,137	22,187,956
1888.	1,525,048	6,417,701	373,934	27,134	8,542,817	1,781,028	13,459,169	.	2,704	22,146,975
1889.	2,596,233	8,355,178	294,850	89,853	11,336,123	4,787,787	18,993,957	.	4,690	27,335,204
1890.	3,070,657	12,449,772	306,897	174,584	16,001,910	5,277,210	21,140,198	.	34,273	27,883,023
1891.	3,859,079	15,310,945	422,806	187,640	19,780,470	5,665,614	24,189,181	.	6,962	26,794,114
1892.	4,393,062	19,005,704	201,373	328,116	17,888,255	2,052,357	20,232,400	.	26,289	22,720,111
1893.	1,069,597	16,404,425	381,986	273,467	17,868,573	1,831,417	17,880,688	.	6,640	20,182,216
1894.	1,070,576	15,649,881	348,069	.	17,342,993	.	.	.	.	.

**TOTAL VALUES of Merchandise received from the Principal and other Foreign Countries for Immediate Transit across United States Territory or for Immediate Transhipment in Ports of the United States to other Foreign Countries, and so shipped, for each Year from 1868 to 1894 inclusive.**

Year ending June 30.	Countries from which received.						Countries to which shipped.						Total Value of Merchandise received and shipped.
	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.	
1868	10,694,576	132,074	4,864,209	14,967	4,263,621	1,576,137	2,025,023	3,212,123	14,375,419	481,643	116,521	1,304,875	21,516,604
1869	10,891,698	150,382	5,852,678	60,715	2,373,474	1,767,037	2,693,325	1,547,612	15,033,821	448,300	72,875	1,299,861	21,095,984
1870	10,210,455	302,806	7,215,973	103,977	3,309,227	2,049,422	2,946,053	2,116,249	16,089,037	321,331	135,915	983,275	23,191,860
1871	13,473,915	322,110	7,954,060	344,179	1,307,573	1,913,200	4,031,319	1,033,307	18,406,475	346,872	345,224	1,211,840	23,375,037
1872	17,633,231	227,232	9,276,169	174,104	2,227,422	1,847,162	2,743,494	2,263,819	24,042,790	358,151	179,570	1,737,496	31,385,320
1873	19,144,815	250,704	13,394,693	286,601	5,737,904	1,284,482	5,144,175	5,622,325	28,784,184	235,113	319,771	1,993,617	40,069,185
1874	18,832,900	211,907	14,163,690	151,920	4,563,869	1,226,390	5,391,201	3,805,642	27,310,739	665,214	520,493	1,096,387	38,850,676
1875	18,657,276	325,648	18,042,577	115,527	1,759,308	1,765,947	7,229,912	1,495,285	24,419,838	1,135,004	248,358	1,753,508	42,062,655
1876	14,304,197	290,489	12,591,902	226,315	2,962,963	1,686,789	11,791,500	2,958,558	24,419,838	1,129,440	306,061	1,668,508	29,256,773
1877	13,732,085	337,897	12,471,695	158,852	1,095,451	1,460,793	7,758,201	1,108,298	18,977,153	316,664	319,611	1,305,908	27,337,148
1878	10,084,510	376,768	12,204,038	146,822	3,041,957	1,481,633	9,577,050	2,965,230	12,912,685	330,968	174,757	1,272,032	25,085,867
1879	8,795,340	521,914	12,081,095	222,320	1,934,042	1,591,153	10,856,579	3,658,477	17,042,103	300,148	294,848	1,775,594	33,867,749
1880	10,311,139	620,704	17,194,747	239,655	3,006,069	1,942,465	11,592,079	5,336,361	37,695,484	800,025	319,257	2,421,526	58,065,459
1881	14,898,052	721,344	17,002,046	217,444	2,642,550	2,222,122	11,089,865	2,758,994	39,312,568	2,282,473	352,552	3,081,875	36,878,327
1882	18,911,637	755,560	28,543,178	380,100	5,662,926	3,812,058	15,288,389	2,940,488	23,939,385	2,748,454	221,061	2,656,635	36,814,392
1883	20,242,222	1,149,195	29,802,820	281,309	3,126,069	4,276,712	11,089,865	2,940,488	23,939,385	2,748,454	221,061	2,656,635	36,814,392
1884	14,638,694	948,901	13,419,227	408,124	3,635,544	3,545,544	7,235,619	3,771,524	19,700,458	1,262,515	119,376	2,746,146	37,443,538
1885	11,064,186	1,140,348	13,523,613	308,293	4,833,354	3,545,544	8,510,007	3,803,566	20,241,070	1,279,399	452,700	2,751,423	37,038,294
1886	13,142,644	1,462,414	10,851,020	216,078	6,737,879	4,538,229	9,510,619	2,591,043	22,187,955	2,002,476	608,121	3,561,358	42,766,121
1887	17,977,200	1,670,952	11,504,721	111,635	6,780,853	4,720,760	6,853,195	4,581,064	15,611,656	3,766,180	3,997,696	3,997,696	33,943,209
1888	13,707,647	1,817,511	8,342,123	290,497	8,020,846	4,534,298	9,233,195	5,097,434	22,146,975	4,781,149	892,158	5,768,287	34,468,426
1889	19,080,240	2,582,456	11,336,193	296,654	4,854,736	5,052,610	10,656,465	5,097,434	27,335,678	4,944,149	1,215,399	9,968,851	55,699,426
1890	20,694,427	2,735,546	16,002,384	630,050	6,739,256	5,898,763	11,968,808	3,640,940	27,883,023	5,052,318	966,851	7,985,977	69,547,917
1891	20,879,851	2,819,238	19,780,470	565,388	6,977,901	6,475,119	20,141,862	6,995,419	4,953,911	1,472,980	9,299,451	67,949,837	
1892	21,334,783	2,930,571	23,028,255	1,383,455	11,094,445	8,936,228	18,511,287	7,986,637	4,607,539	2,034,761	12,089,492	67,949,837	
1893	20,387,339	3,466,885	17,885,573	1,652,200	10,131,171	14,426,669	18,394,865	7,986,637	22,720,114	4,543,455	2,586,919	16,645,187	
1894	19,641,622	3,717,740	17,342,093	1,858,367	9,916,742	19,031,011	18,394,865	11,154,933	20,182,216	4,543,455	2,586,919	16,645,187	

# Department of Railways and Canals

## FOREIGN CARRYING TRADE.

VALUE of the Imports and Exports of the United States carried respectively in cars and other land vehicles, in American vessels and in foreign vessels during each Fiscal Year, from 1857 to 1894 inclusive, with the percentage carried in American vessel (coin and bullion are included from 1857 to 1879, inclusive,) as method of transportation of specie and merchandise cannot be separately stated.

Year ending June 30.	IMPORTS.				EXPORTS.				TOTAL IMPORTS AND EXPORTS.				Percentage carried in American vessels.	
	In cars and other land vehicles		In American vessels.		In cars and other land vehicles		In American vessels.		In cars and other land vehicles		In American vessels.			Total.
	\$	In Foreign vessels.	\$	In American vessels.	\$	In Foreign vessels.	\$	In American vessels.	\$	In Foreign vessels.	\$	In American vessels.		
1857		101,773,971	259,116,170	251,214,837	111,745,825					510,331,027	213,519,796	723,850,823	70.5	
1858		78,913,134	203,700,016	243,491,288	81,153,133					447,191,304	160,066,267	607,257,571	73.7	
1859		122,644,702	216,123,428	249,617,953	107,171,309					465,741,381	229,816,211	695,557,592	66.9	
1860		134,001,399	228,164,855	279,082,902	121,039,394					507,247,737	255,040,793	762,288,530	66.5	
1861		194,106,098	201,544,055	179,972,733	69,372,180					381,516,788	203,478,278	584,995,066	65.2	
1862		113,497,629	92,274,100	125,431,318	104,517,637					217,693,418	218,015,296	435,710,714	50.0	
1863		143,175,340	109,744,580	132,127,801	199,880,691					241,872,471	343,056,031	584,928,502	41.4	
1864		248,350,818	81,212,077	102,849,469	237,442,730					134,061,486	485,793,548	619,855,034	27.5	
1865		174,170,336	74,885,116	93,017,756	262,839,388					167,402,872	437,010,124	604,412,996	32.2	
1866		333,471,763	112,040,395	213,671,466	350,754,928					685,226,691	685,226,691	1,010,368,552	32.2	
1867		300,622,035	117,209,536	180,625,368	280,708,368					325,711,861	581,330,403	879,105,307	33.9	
1868		248,659,583	122,965,225	173,106,348	301,886,491					297,834,904	559,546,074	848,527,647	35.1	
1869		309,512,231	135,802,024	153,154,748	301,886,491					289,950,772	586,492,012	876,448,784	33.1	
1870		309,140,510	153,297,077	199,732,324	329,786,978					332,969,401	638,927,488	991,896,889	35.6	
1871	15,187,354	363,020,644	163,285,710	177,296,302	199,378,462	7,798,156	22,985,510	22,985,510	332,969,401	353,664,172	755,822,576	1,132,472,258	31.2	
1872	17,635,681	445,416,783	177,296,302	445,416,783	393,920,379	10,015,089	27,650,770	27,650,770	332,969,401	345,341,101	679,300,501	1,212,328,233	28.5	
1873	17,070,548	471,806,765	174,739,834	471,806,765	494,913,886	10,799,430	27,889,978	27,889,978	332,969,401	346,306,592	689,346,362	1,212,328,233	25.8	
1874	14,513,335	405,320,135	176,027,778	405,320,135	501,838,949	8,509,205	23,022,540	23,022,540	332,969,401	350,451,994	689,206,106	1,312,680,640	26.7	
1875	13,083,859	382,949,568	157,872,726	382,949,568	156,385,066	7,304,356	18,473,154	18,473,154	332,969,401	314,257,732	647,247,136	1,119,434,544	25.2	
1876	12,148,667	321,139,500	143,389,704	321,139,500	167,686,467	6,324,487	17,404,810	17,404,810	332,969,401	311,076,171	648,042,571	1,142,904,312	26.5	
1877	10,697,640	329,565,833	145,499,282	329,565,833	166,531,624	7,511,365	20,477,364	20,477,364	332,969,401	316,669,281	649,648,682	1,194,045,627	26.5	
1878	12,965,999	307,407,565	146,499,282	307,407,565	189,029,209	7,439,868	19,423,085	19,423,085	332,969,401	312,013,692	645,983,091	1,202,708,609	22.6	
1879	143,590,353	503,494,913	149,317,368	503,494,913	116,955,324	5,838,928	25,452,521	25,452,521	332,969,401	272,316,334	1,224,265,434	1,503,538,404	16.22	
1880	149,317,368	491,840,269	149,317,368	491,840,269	116,955,324	8,259,308	34,973,317	34,973,317	332,969,401	250,586,470	1,269,002,983	1,546,042,974	15.40	
1881	17,193,213	571,517,802	133,631,146	571,517,802	641,469,957	12,118,371	48,092,892	48,092,892	332,969,401	229,229,745	1,212,978,769	1,475,181,831	15.54	
1882	22,854,948	564,175,576	136,002,290	564,175,576	615,297,007	25,089,844	46,714,008	46,714,008	332,969,401	240,420,500	1,258,506,024	1,547,020,316	16.60	
1883	135,046,207	512,511,192	135,046,207	512,511,192	98,652,828	26,573,774	45,332,775	45,332,775	332,969,401	194,865,743	1,079,518,566	1,319,717,084	14.76	
1884	20,140,204	443,513,801	112,864,052	443,513,801	82,001,691	24,183,269	78,406,680	78,406,680	332,969,401	197,349,503	1,073,911,113	1,314,960,369	15.01	
1885	21,149,476	491,937,636	118,942,817	491,937,636	581,973,477	19,144,667	48,951,725	48,951,725	332,969,401	194,356,746	1,165,194,508	1,408,502,976	13.80	
1886	24,555,683	543,392,216	121,365,493	543,392,216	72,991,253	21,389,666								
1887	27,562,059													

VALUE of the Imports and Exports of the United States carried respectively in cars and other land vehicles, etc.—Continued.

Year ending June 30.	IMPORTS.			EXPORTS.			TOTAL IMPORTS AND EXPORTS.				Percentage carried in American vessels.
	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In American vessels.	In Foreign vessels.	Total.		
										\$	
1886	32,209,459	123,525,298	568,222,357	22,147,368	67,332,175	606,474,964	54,356,827	199,857,473	1,174,697,321	1,419,911,621	13.44
1889	38,227,861	120,782,910	586,120,881	28,436,517	83,022,198	630,942,660	66,694,378	203,805,108	1,217,063,541	1,487,533,027	13.70
1890	40,621,361	124,948,948	623,740,100	32,949,902	77,592,138	747,376,644	73,576,263	202,451,086	1,371,116,744	1,647,139,093	12.29
1891	40,932,755	127,471,678	676,511,763	31,923,439	78,968,047	773,589,324	72,836,194	206,439,735	1,450,101,087	1,729,397,096	11.94
1892	39,726,595	139,139,891	648,535,976	33,220,629	81,033,844	916,023,675	72,947,224	220,173,735	1,564,539,651	1,857,380,610	11.85
1893	44,121,094	127,095,434	695,184,394	43,862,947	70,670,073	733,132,174	87,984,041	197,765,507	1,428,316,568	1,626,082,075	12.2
1894	29,623,095	121,561,193	503,810,334	49,221,427	73,707,023	769,212,122	78,844,522	195,268,216	1,273,022,456	1,468,290,672	13.3

NOTES.—1. The amounts carried in cars and other land vehicles, were not separately stated prior to July 1, 1870. 2. Exports are stated in mixed gold and currency values from 1862 to 1879, inclusive.



## Department of Railways and Canals

**STATEMENT showing the Total Values of Foreign Merchandise transported in the In Transit and Transhipment Trade of the United States with the British North American Possessions during each year from 1871 to 1894.**

Year ending 30th June.	Received for transit and transhipment from British North American Possessions.			Shipped in transit to or transhipment for British North American Possessions.		
	By Land.	By Water.	Total.	By Land.	By Water.	Total.
	\$	\$	\$	\$	\$	\$
1871.....	6,035,585	1,918,475	7,954,060	15,624,591	2,781,884	18,406,475
1872.....	8,237,859	1,038,310	9,276,169	19,357,342	4,685,448	24,042,790
1873.....	11,700,787	1,693,906	13,394,693	20,178,666	6,605,518	26,784,184
1874.....	12,695,590	1,468,100	14,163,690	20,572,299	6,938,430	27,510,739
1875.....	16,890,022	1,152,555	18,042,577	23,794,129	6,006,166	29,800,295
1876.....	21,301,262	1,290,640	22,591,902	19,369,958	5,049,930	24,419,888
1877.....	10,835,642	1,636,053	12,471,695	17,066,855	1,910,298	18,977,153
1878.....	10,314,534	1,889,524	12,204,058	11,914,321	998,364	12,912,685
1879.....	10,098,998	1,982,097	12,081,095	12,030,635	858,952	12,889,587
1880.....	15,265,177	1,869,570	17,134,747	16,388,673	653,430	17,042,003
1881.....	15,200,967	1,801,079	17,002,046	22,828,270	527,994	23,356,264
1882.....	24,665,029	3,878,149	28,543,178	36,613,465	982,019	37,595,484
1883.....	26,382,370	3,420,450	29,802,820	38,389,318	923,250	39,312,568
1884.....	13,043,498	375,729	13,419,227	22,120,587	818,798	22,939,385
1885.....	12,755,686	767,927	13,523,613	19,105,476	594,982	19,700,458
1886.....	9,593,344	1,267,676	10,861,020	19,428,867	812,212	20,241,079
1887.....	9,377,041	2,127,680	11,504,721	20,178,365	2,009,590	22,187,955
1888.....	6,309,024	2,033,793	8,342,817	13,347,876	2,063,780	15,411,656
1889.....	8,303,171	3,032,952	11,336,123	19,299,966	2,849,263	22,149,229
1890.....	13,524,298	2,477,612	16,001,910	24,788,152	2,547,052	27,335,201
1891.....	18,065,925	1,714,545	19,780,470	25,185,706	2,697,317	27,883,023
1892.....	21,346,413	2,581,842	23,928,255	23,989,746	2,714,368	26,704,114
1893.....	13,807,662	4,077,911	17,885,573	20,151,432	2,568,679	22,720,111
1894.....	13,501,664	3,840,429	17,342,093	17,974,332	2,207,884	20,182,216

NOTE.—This movement forms no part of the import and export trade.

C.—TABLE showing the Tonnage of the undermentioned Articles, moved on

YEARS.	VEGETABLE FOOD.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Vegetable Food.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869	71,051	670,534	256,475	99,012	92,309	13,489	99,743
1870	54,978	658,524	193,129	123,191	117,941	19,520	127,727
1871	41,211	748,549	672,057	113,992	129,891	34,563	109,935
1872	20,534	403,903	902,753	120,061	92,959	13,357	120,753
1873	19,307	803,064	637,296	70,586	70,023	30,160	114,735
1874	29,134	772,163	519,203	98,654	59,408	8,215	280,821
1875	17,635	744,293	282,031	104,475	62,717	8,309	86,090
1876	9,290	416,376	365,254	96,494	52,147	19,949	104,783
1877	8,923	448,043	723,458	139,453	66,045	35,948	77,114
1878	5,904	844,555	734,993	89,534	85,029	64,613	88,106
1879	7,164	949,466	621,180	96,144	23,164	59,210	77,071
1880	8,266	966,052	1,156,619	106,247	20,893	26,340	86,673
1881	6,926	444,832	475,823	81,587	30,321	15,484	61,588
1882	9,372	642,215	251,687	96,650	22,180	43,372	53,300
1883	9,047	573,740	522,978	58,787	51,607	95,246	67,595
1884	7,251	790,409	198,216	65,008	52,696	71,462	51,944
1885	6,869	565,922	359,982	64,587	8,234	10,211	47,505
1886	9,005	993,129	354,765	62,854	7,278	3,073	59,782
1887	4,089	936,840	446,617	75,458	35,365	6,717	47,678
1888	3,287	491,419	499,218	41,100	70,315	12,532	49,087
1889	4,429	484,141	592,550	66,110	63,674	36,329	49,663
1890	3,489	353,738	616,702	90,754	48,438	21,657	33,123
1891	3,126	756,101	142,141	71,903	16,362	68,771	33,951
1892	4,879	620,768	150,269	51,596	72,444	4,236	33,807
1893	2,367	1,093,927	252,283	49,651	24,714	6,518	20,656
1894	2,909	903,361	275,377	89,700	100,874	5,288	22,620

## Department of Railways and Canals.

all Canals in the State of New York, during a series of Twenty-six Years.

HEAVY GOODS.						
Total.	Railway Iron.	Other Iron.	Salt.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1,302,613	137,677	79,652	263,333	1,324,408	183,992	1,989,062
1,295,010	135,930	89,708	266,740	1,558,185	238,802	2,289,365
1,850,198	178,269	100,310	248,709	1,194,037	289,952	2,011,277
1,674,320	161,667	96,996	248,558	1,462,590	377,592	2,347,403
1,745,171	53,363	62,581	216,706	1,625,859	415,968	2,374,477
1,767,598	24,511	82,955	173,590	1,413,162	232,544	1,926,762
1,305,550	36,603	95,305	186,785	1,217,091	283,219	1,819,003
1,064,293	11,691	69,450	114,079	1,036,698	173,530	1,405,439
1,498,984	10,341	58,828	156,918	1,286,881	250,573	1,763,541
1,912,734	8,385	65,642	139,927	889,873	210,078	1,313,905
1,833,399	27,634	99,568	136,021	971,074	314,411	1,548,708
2,371,090	93,613	139,993	144,487	959,342	370,884	1,709,319
1,116,561	78,650	205,005	113,756	1,092,003	337,873	1,827,287
1,118,776	58,921	122,786	108,040	1,228,435	364,361	1,882,543
1,379,000	46,553	47,412	190,392	1,152,849	293,892	1,731,098
1,236,986	28,513	54,471	161,785	954,288	210,610	1,400,670
1,063,310	12,215	38,726	161,272	1,025,941	195,750	1,433,904
1,489,886	10,878	152,030	112,002	857,884	269,914	1,402,708
1,552,764	21,368	224,979	124,054	905,424	243,578	1,539,403
1,166,958	2,596	43,881	106,344	1,219,680	259,269	1,631,770
1,296,896	3,278	78,135	112,100	1,094,897	234,948	1,523,358
1,167,901	5,800	26,804	93,181	830,154	202,072	1,157,291
1,092,355	1,960	36,770	81,232	881,502	215,686	1,217,150
937,999	524	40,073	93,216	832,397	136,612	1,102,822
1,450,116	536	25,204	52,094	741,934	102,275	922,043
1,400,129	267	22,614	70,353	609,368	37,641	740,243

D.—TABLE showing the Tonnage of the undermentioned Articles, moved through

YEAR.	VEGETABLE FOOD.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*.....	45,674	313,825	120,599	20,951	.....	904	1,937
1872.....	26,651	239,998	254,902	6,035	7,752	64	2,745
1873.....	30,665	355,847	180,169	8,225	1,194	3	3,777
1874.....	24,019	413,212	181,151	18,871	5,954	513	8,677
1875.....	13,964	253,835	103,749	35,751	3,383	917	6,337
1876.....	15,778	201,906	144,501	18,455	24,496	1,454	3,198
1877.....	13,558	253,953	169,196	19,870	2,810	2,439	2,355
1878.....	9,121	191,982	185,931	10,979	3,088	.....	2,302
1879.....	10,710	274,570	144,506	4,655	1,239	440	2,444
1880.....	12,679	242,020	163,738	17,772	477	1,016	1,480
1881.....	9,959	127,832	101,075	24,509	.....	1,844	2,086
1882.....	12,261	215,056	54,799	20,126	611	3,226	403
1883.....	13,471	152,794	182,269	10,436	731	1,642	10,983
1884.....	13,683	144,851	118,811	7,155	10,746	1,320	9,168
1885.....	13,334	124,206	117,536	15,801	1,116	.....	1,912
1886.....	19,474	154,169	219,442	1,595	4,911	564	14,657
1887.....	23,949	221,927	114,938	9,574	12,050	.....	12,533
1888.....	16,983	160,963	194,886	5,906	26,629	811	13,608
1889.....	7,931	126,664	353,595	4,272	28,356	2,673	18,552
1890.....	14,461	118,002	327,394	10,830	27,728	1,549	20,876
1891.....	13,517	198,658	185,180	8,113	52,959	65,888	28,042
1892.....	17,046	232,019	192,548	6,433	37,173	9,392	32,815
1893.....	15,235	258,392	441,092	18,599	31,283	3,671	36,981
1894.....	33,628	270,993	169,233	28,353	27,962	567	60,673

\*Fiscal.

† Apples, meal, all kinds, pease, potatoes.

## Department of Railways and Canals.

the Welland Canal, during a series of Twenty-four Years ended 31st Dec., 1894.

HEAVY GOODS.							
Total.	Railway Iron.	Other Iron.	Salt.	Iron and Salt having paid full Tolls on St. Lawrence Canals.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
503,860	68,064	16,924	91,575	37,153	103,126	58,781	275,623
538,147	26,217	17,141	50,540	44,243	186,932	98,605	423,678
579,880	6,923	20,754	40,850	17,157	339,016	118,685	543,387
647,397	6,032	12,068	23,309	9,579	323,503	56,825	431,316
417,936	1,517	7,588	13,509	9,962	321,306	43,683	397,565
409,788	51	7,997	30,300	20,327	288,211	81,654	378,540
464,181	9,630	9,696	9,173	3,983	323,869	42,758	399,109
403,403	10	11,518	3,980	12,686	295,318	15,229	338,741
438,564	2,782	5,797	7,174	17,796	192,957	19,164	245,670
442,182	5,360	4,812	413	22,273	109,986	34,139	176,983
269,395	4,585	7,013	10	30,682	128,113	18,785	189,188
306,482	.....	5,348	50	17,327	237,559	23,700	283,984
373,326	1,237	7,922	66	17,037	307,058	31,785	365,105
305,734	698	652	461	3,242	274,471	53,205	332,729
273,905	78	2,055	597	14,243	248,272	26,728	291,973
414,812	166	6,123	48	12,324	271,356	27,447	317,464
394,971	1,351	5,636	.....	6,715	145,193	13,866	172,761
419,786	93	3,220	316	13,617	223,871	16,872	257,989
542,043	47	2,479	1,254	20,269	268,305	2,435	294,789
519,291	.....	753	1,027	28,047	202,384	8,138	240,349
367,177	127	1,610	2,567	7,953	224,644	3,415	240,316
527,426	163	1,567	878	3,666	211,616	355	218,245
805,253	6	2,075	374	8,139	233,096	.....	243,690
591,409	.....	3,072	159	977	203,608	.....	207,816

E.—TABLE showing the Tonnage of the undermentioned Articles cleared at Buffalo and Tonawanda, for transit through the Erie Canal, for a series of twenty-six years.

## VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869.....	5,609	490,904	219,874	1,978	63,728	2,150	2,193	786,436	.....	.....
1870.....	8,258	502,158	165,577	19,944	89,156	10,593	6,906	802,592	2·05	.....
1871.....	5,607	570,849	579,709	19,810	106,391	27,622	5,705	1,315,693	67·59	.....
1872.....	.....	330,032	866,169	41,515	73,572	5,900	88	1,317,276	67·50	.....
1873.....	6	737,167	611,675	8,636	51,615	22,441	634	1,432,174	82·10	.....
1874.....	.....	650,161	459,728	3,192	44,079	112	237	1,157,509	47·18	.....
1875.....	5,859	695,315	273,006	1,156	36,609	2,242	3,372	1,017,559	29·38	.....
1876.....	231	377,317	356,064	6,334	24,488	12,205	4,691	783,331	.....	0·39
1877.....	1,710	398,416	709,723	26,351	52,559	27,365	4,976	1,223,100	55·52	.....
1878.....	987	775,953	718,714	21,665	69,256	51,064	6,662	1,644,301	109·08	.....
1879.....	1,239	892,404	602,171	7,193	14,537	40,471	7,528	1,565,543	99·07	.....
1880.....	2,743	897,603	131,857	434	16,154	12,137	4,256	2,065,184	162·06	.....
1881.....	1,491	386,605	458,318	86	24,751	107	7,484	878,842	11·75	.....
1882.....	1,123	586,019	241,406	1,858	9,046	19,158	6,216	864,826	9·96	.....
1883.....	538	535,150	517,219	6,816	47,190	79,010	6,051	1,191,974	51·06	.....
1884.....	520	767,784	194,368	4,910	47,060	57,856	4,411	1,078,909	37·18	.....
1885.....	323	540,533	356,737	3,317	5,610	6,405	5,427	918,352	14·36	.....
1886.....	488	955,851	351,272	6,799	5,180	.....	4,001	1,353,591	72·11	.....
1887.....	334	914,152	438,069	15,207	32,907	4,612	44,693	1,449,984	85·64	.....
1888.....	534	469,965	494,110	6,589	68,922	10,997	1,717	1,052,834	33·87	.....
1889.....	845	457,922	579,526	16,380	61,175	34,167	5,160	1,155,175	46·88	.....
1890.....	195	329,531	498,641	58,563	45,202	16,903	4,362	953,397	21·23	.....
1891.....	1,071	733,967	137,679	43,779	14,803	66,278	2,594	1,000,171	27·18	.....
1892.....	2,485	611,177	141,506	37,570	70,363	3,997	3,472	870,570	10·69	.....
1893.....	424	1,086,834	240,767	38,986	21,981	6,156	243	1,395,391	77·43	.....
1894.....	327	887,908	265,947	69,707	99,898	5,191	2,123	1,331,101	69·26	.....

## Department of Railways and Canals.

STATEMENT to Table E showing the shipments at Oswego during the same period.

### VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles.	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1860.....	7,361	141,360	28,585	66,794	1,113	8,569	14,033	267,815	.....	.....
1870.....	11,440	115,732	10,120	77,906	3,953	7,402	11,628	238,181	....	11·06
1871.....	10,043	123,173	70,218	72,675	1,806	6,250	13,259	297,424	11·05	.....
1872.....	4,773	57,865	27,148	62,172	684	6,751	10,425	169,818	.....	36·59
1873.....	4,061	53,361	10,578	46,337	670	6,019	10,739	131,765	.....	50·80
1874.....	.....	108,238	46,127	77,007	1,103	7,053	3,747	245,325	.....	9·14
1875.....	1,728	32,690	3,034	75,083	3,308	4,989	5,931	126,763	.....	52·67
1876.....	967	21,890	1,324	63,336	117	5,703	6,638	99,975	.....	62·67
1877.....	855	28,955	3,308	80,306	316	6,603	6,556	126,899	.....	52·61
1878.....	1,394	24,171	1,383	50,381	.....	10,598	5,222	93,149	.....	65·21
1879.....	734	25,740	9,268	71,693	.....	16,623	3,110	127,168	.....	52·51
1880.....	951	17,466	15,656	82,743	.....	12,598	5,996	135,410	.....	49·43
1881.....	758	25,352	8,064	62,793	200	14,444	4,027	115,638	.....	56·82
1882.....	813	20,274	4,401	70,862	416	22,265	7,773	126,804	.....	52·65
1883.....	432	22,634	535	32,557	.....	14,384	1,967	72,507	.....	73·00
1884.....	404	5,932	413	48,391	.....	12,173	2,819	70,132	.....	73·43
1885.....	519	6,484	22	45,264	.....	4,613	2,945	59,847	.....	71·62
1886.....	737	9,579	154	42,261	.....	1,671	4,814	59,216	.....	77·88
1887.....	790	675	2	44,580	.....	716	1,370	48,133	.....	82·02
1888.....	384	2,206	168	6,237	.....	.....	2,196	11,191	.....	95·82
1889.....	473	8,002	8,950	40,096	16	1,405	1,003	59,945	.....	77·61
1890.....	545	10,378	10,408	26,639	8	4,635	2,356	54,969	.....	79·47
1891.....	292	4,298	1,652	27,418	.....	2,130	3,620	39,410	.....	85·28
1892.....	273	4,806	5,657	5,283	.....	199	2,340	18,558	.....	93·07
1893.....	119	2,036	3,968	8,476	.....	237	2,784	17,620	.....	93·43
1894.....	8	10,293	10,514	17,160	.....	.....	2,609	40,584	.....	84·84

F.—TABLE showing the Tonnage of the undermentioned Articles cleared downward on the Welland Canal, during a series of Twenty-four Years, ended 31st December, 1894.

## VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*.....	44,110	310,090	119,541	3,920	.....	680	1,541	479,882
1872.....	26,648	231,056	254,534	,693	7,594	64	2,300	524,889
1873.....	30,660	345,720	180,042	613	1,188	3	3,557	563,813
1874.....	24,017	406,157	181,128	377	5,953	.....	3,301	620,933
1875.....	13,930	248,555	103,477	813	3,383	500	4,304	374,962
1876.....	15,735	194,559	144,501	1,110	24,496	1,454	2,949	384,807
1877.....	13,588	248,894	169,185	10,216	2,810	2,405	1,833	448,931
1878.....	8,854	188,106	185,931	1,217	3,088	.....	2,100	389,296
1879.....	10,588	271,545	114,276	803	1,196	.....	2,387	430,795
1880.....	12,467	240,601	162,891	.....	477	.....	1,418	417,853
1881.....	9,655	121,393	103,075	252	.....	6	1,371	235,752
1882.....	12,205	205,876	54,797	537	.....	1,954	225	275,594
1883.....	13,256	146,741	182,143	975	731	518	10,971	355,335
1884.....	13,626	135,804	118,811	270	10,746	477	9,018	288,752
1885.....	13,322	114,090	117,536	618	1,116	.....	1,628	248,310
1886.....	19,418	146,151	218,897	.....	4,891	.....	14,581	403,928
1887.....	23,940	210,755	114,938	1,711	12,050	.....	12,149	375,543
1888.....	16,973	150,833	194,886	555	26,629	811	13,358	404,045
1889.....	7,922	120,498	353,595	197	28,356	1,918	18,273	530,759
1890.....	14,461	114,924	327,394	6,519	27,728	1,121	20,836	512,983
1891.....	13,517	196,326	185,177	8,113	52,959	65,071	27,895	549,058
1892.....	17,046	229,569	192,548	6,433	37,173	9,392	32,548	524,709
1893.....	15,232	257,203	441,092	18,461	31,283	3,671	36,981	803,923
1894.....	33,623	270,514	169,233	28,353	27,962	.....	60,587	590,277

\* Fiscal.



# Department of Railways and Canals.

G.—TABLE showing the Tonnage of the undermentioned Articles passed through the Welland Canal in transit between Ports in the United States during a series of Twenty-four Years, ended 31st December, 1894.

Year.	VEGETABLE FOOD.										HEAVY GOODS.					Total.
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles.	Total.	Railway Iron.	Other Iron.	Salt.	Coal.	Ores.			
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869	30,681	211,085	91,149	2,942	.....	667	1,006	337,530	68,064	14,334	89,086	23,566	35,912	235,962		
1872	10,482	124,695	89,761	1,391	7,400	.....	608	234,337	24,040	13,239	49,843	95,741	59,401	242,264		
1873	10,805	127,727	101,329	1,920	1,188	3	392	243,366	4,659	13,826	40,507	170,242	62,942	292,176		
1874	8,230	229,053	125,627	.....	5,948	.....	5,368	374,226	5,742	8,941	22,888	203,673	19,651	260,895		
1875	1,881	113,832	54,188	2,641	2,946	500	1,920	177,908	14	4,123	12,931	192,767	34,616	244,451		
1876	5,187	90,247	58,138	.....	1,905	525	403	162,405	.....	5,531	29,395	167,110	25,808	227,844		
1877	3,342	107,396	65,260	1,603	1,905	258	413	180,586	8,976	8,336	8,336	172,868	41,107	239,975		
1878	1,316	65,542	60,026	859	277	.....	341	128,361	.....	10,713	3,892	150,583	13,535	178,723		
1879	159	53,791	33,401	.....	464	.....	11	87,826	2,405	3,648	6,318	118,573	17,797	148,741		
1880	.....	30,611	16,122	1,551	296	.....	.....	65,285	4,743	3,515	371	83,945	18,380	92,954		
1881	.....	34,320	30,091	994	.....	.....	10	.....	1,313	5,570	.....	83,858	6,464	97,205		
1882	107	30,227	32,433	537	.....	684	14	64,002	.....	4,076	.....	158,552	14,533	177,161		
1883	2,041	54,382	66,128	735	731	.....	8,579	132,496	1,269	6,901	8	196,462	24,891	229,471		
1884	1,715	40,956	53,707	.....	9,874	.....	8,170	114,422	698	5,909	.....	210,790	15,100	227,187		
1885	124	53,235	63,229	732	.....	.....	1	118,203	.....	1,594	.....	198,416	15,029	215,030		
1886	7,591	53,258	94,048	.....	882	.....	13,201	172,888	156	5,328	1	189,964	11,364	206,813		
1887	11,780	37,678	83,431	1,732	4,790	.....	10,859	157,530	.....	4,406	.....	82,780	6,627	87,828		
1888	8,563	39,999	102,974	2	26,510	179	11,698	189,823	63	1,601	56	173,289	2,369	177,288		
1889	5,017	39,229	147,045	.....	27,492	.....	17,225	236,208	.....	1,587	896	227,476	1,204	231,163		
1890	9,204	31,527	180,842	6,519	27,030	.....	26,115	275,619	.....	504	208	162,231	1,620	164,563		
1891	6,802	32,997	127,494	8,113	52,823	.....	20,497	253,444	.....	292	705	186,572	1,773	189,342		
1892	11,018	26,950	131,222	6,433	36,935	.....	31,992	244,550	.....	576	2	183,895	.....	184,473		
1893	6,588	28,187	198,777	16,791	23,870	864	39,352	311,389	.....	344	.....	206,827	.....	207,171		
1894	17,795	53,846	10,539	28,095	27,621	.....	60,462	198,358	.....	297	.....	188,521	.....	188,813		

H.—TABLE showing the Tonnage of Vegetable Food carried on each of the Lines of Canals and the two principal Railways, competing for the Carrying Trade between Lake Erie and Tidewater, for a series of Twenty-four Years, ended 31st December, 1894.

Year.	Total on New York Canals.	Total on Welland Canal.	Total on New York Central and Erie Railways.	Quantity cleared at Buffalo and Tonawanda by Erie Canal.	Quantity cleared at Oswego by Canal.	Quantity charged through the Welland Canal in transit between ports in the United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*	1,302,613	503,860	1,087,809	786,436	267,815	337,530
1872	1,674,320	538,147	1,870,614	1,317,276	169,818	234,337
1873	1,745,171	579,880	2,036,992	1,432,174	131,765	243,366
1874	1,767,598	647,397	2,791,517	1,557,509	243,325	374,226
1875	1,305,550	417,936	2,343,241	1,017,559	126,763	177,908
1876	1,064,293	409,788	2,875,803	783,331	99,975	162,405
1877	1,408,984	464,181	2,493,683	1,223,100	126,899	180,586
1878	1,912,734	403,403	3,695,764	1,644,301	93,149	128,361
1879	1,833,399	438,564	4,353,617	1,565,543	127,168	87,826
1880	2,371,090	442,182	4,732,385	2,065,184	135,410	48,580
1881	1,116,561	269,395	4,983,722	878,842	115,638	65,285
1882	1,118,776	306,482	3,885,577	864,826	126,804	64,002
1883	1,379,000	372,236	4,422,461	1,191,974	72,507	132,496
1884	1,236,986	305,734	3,639,805	1,078,909	70,132	114,422
1885	1,063,310	273,905	4,105,594	918,352	59,847	118,203
1886	1,489,886	414,812	3,802,262	1,353,591	59,216	172,888
1887	1,552,764	394,971	3,847,766	1,449,984	48,133	157,530
1888	1,166,958	419,786	3,197,734	1,052,834	11,191	189,825
1889	1,296,896	542,043	3,654,984	1,155,175	59,945	236,208
1890	1,167,901	519,291	4,336,199	953,397	54,969	275,619
1891	1,092,355	367,177	3,565,381	1,000,171	39,410	253,444
1892	937,999	527,426	5,913,013	870,570	18,558	244,550
1893	1,452,563	805,250	5,107,426	1,395,391	17,620	311,389
1894	1,400,129	590,409	4,281,056	1,331,101	40,584	293,148

## Department of Railways and Canals.

I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels entering the Canal at Port Colborne during the Seasons of Navigation in 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893 and 1894.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	174	62,665	432	121,150	41	17,482	329	97,257	976	298,554
Tons.		Tons.		Tons.		Tons.		Tons.		
<b>1882.</b>										
Wheat .....	60,535		46,201		5,203		87,213		199,152	
Corn.....	7,431		6,075		3,468		38,360		55,334	
Rye.....							1,954		1,954	
Coal.....	1,673		51,127		112		27,968		80,880	
Miscellaneous merchandise ..	2,939		3,744		1,553		2,605		10,841	
Lumber..... Ft. B. M.	1,021,957		1,943,568		3,969,790		17,327,483		24,262,798	
Timber..... Cub. ft.	125,960		2,847,066				13,500		3,013,526	
Staves..... No.	59,600		1,065,233				104,000		1,228,833	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	180	68,850	468	130,844	111	68,609	417	127,616	1176	365,929
Tons.		Tons.		Tons.		Tons.		Tons.		
<b>1883.</b>										
Wheat .....	32,761		29,385		5,928		76,715		144,789	
Corn.....	25,651		21,073		36,146		99,272		182,142	
Barley.....							735		735	
Rye.....							518		518	
Oats.....					731				731	
Coal.....	8,398		48,329		835		40,388		97,950	
Miscellaneous merchandise ..	5,238		3,590		13,195		2,299		24,322	
Lumber..... Ft. B. M.	2,102,292		3,455,590		5,287,386		15,143,274		25,988,542	
Timber..... Cub. ft.	83,700		3,514,944				70,500		3,669,144	
Staves..... No.	32,876		1,038,349				90,000		1,161,225	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	173	68,250	285	73,057	99	67,637	364	97,794	921	306,738
Tons.		Tons.		Tons.		Tons.		Tons.		
<b>1884.</b>										
Wheat .....	38,859		11,618		5,461		75,474		131,412	
Corn.....	10,841		13,609		26,452		67,909		118,811	
Barley.....	90								90	
Rye.....	477								477	
Oats.....	872				7,963		1,911		10,746	
Coal.....	497		28,275		301		10,154		39,227	
Shingles, firewood and wood- enware.....	548		2,538		49		30		3,165	
Miscellaneous merchandise ..	2,073		3,804		11,793		428		18,103	
Lumber..... Ft. B. M.	3,393,351		1,680,976		8,987,558		18,126,215		32,188,100	
Timber..... Cub. ft.	437,356		2,107,780				159,647		2,704,783	
Staves..... No.			75,000		33,741		301,267		410,008	

## I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &amp;c.—Continued.

ARTICLES.	CANADIAN VESSELS.		UNITED STATES VESSELS.		TOTAL.
	Steam.	Sail.	Steam.	Sail.	Steam and Sail
	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.
	199 67,461	347 80,828	81 35,613	350 106,873	977 290,775
	Tons.	Tons.	Tons.	Tons.	Tons.
1885.					
Wheat .....	26,025	3,153	6,882	72,478	108,538
Corn .....	16,046	2,462	20,589	78,439	117,536
Barley .....		228			228
Oats .....			217	665	882
Pease .....	11				11
Rye .....					
Coal .....	1,005	20,318		18,560	39,883
Miscellaneous merchandise ..	1,941	3,689	1,111	1,086	7,827
Shingles, woodenware, &c. ....	223	9	53	58	343
Sawed lumber .....	7,725,105	8,681,081	9,381,654	20,935,270	46,723,110
Square timber .....	Cub. ft. 601,516	2,849,526	20,692	113,682	3,585,416
Staves .....	No. 104,000	44,000	83,500		231,500
Firewood .....	Cords	783			783
	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.
	261 95,928	426 123,297	118 86,937	358 108,344	1163 414,506
	Tons.	Tons.	Tons.	Tons.	Tons.
1886.					
Wheat .....	38,984	30,834	2,937	70,019	142,774
Corn .....	48,547	33,315	36,852	99,644	218,358
Barley .....				572	572
Oats .....	6	41	4,331	459	4,837
Pease .....	450	158			608
Rye .....					
Coal .....	4,007	45,018		11,647	60,672
Miscellaneous merchandise ..	2,936	6,728	23,687	281	33,622
Shingles, woodenware, &c. ....	329		252	215	1,152
Sawed lumber .....	6,915,390	15,719,631	8,953,478	18,405,961	49,994,460
Square timber .....	Cub. ft. 564,827	2,335,205		35,500	2,935,532
Staves .....	No. 221,280	697,933			919,213
Firewood .....	Cords	390			390
	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.
	250 86,344	372 101,745	107 94,029	163 46,152	892 328,270
	Tons.	Tons.	Tons.	Tons.	Tons.
1887.					
Wheat .....	80,757	81,652	200	46,186	208,796
Corn .....	12,341	14,775	65,981	20,582	113,679
Barley .....			9	575	584
Oats .....		1,376	11,098	279	12,753
Pease .....		362			362
Rye .....					
Coal .....	1,436	25,165		2,108	28,709
Miscellaneous merchandise ..	2,179	4,609	24,395	415	31,598
Shingles, woodenware, &c. ....	1,716	1,081	26		2,823
Sawed lumber .....	2,894,767	12,329,728	4,161,349	15,091,355	34,477,199
Square timber .....	Cub. ft. 498,770	1,285,594			1,784,364
Staves .....	No. 266,697	266,697			266,697
Firewood .....	Cords	466			765

## Department of Railways and Canals.

**I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &c.—Continued.**

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	242	86,838	339	93,450	114	104,505	219	60,500	914	345,293
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
<b>1888.</b>										
Wheat .....	45,481		60,379		1,353		40,779		147,992	
Corn .....	38,620		14,251		71,988		71,175		196,024	
Barley .....										
Oats .....	672				24,967		1,311		26,950	
Pease .....			54		57				111	
Rye .....					71				703	
Coal .....	1,603		20,064				4,208		25,897	
Miscellaneous merchandise ..	2,165		3,291		22,719		3,722		31,875	
Shingles, woodenware, &c. ....	66		84		141		6		297	
Sawed lumber..... Ft. B. M.	5,262,700		11,977,905		4,451,360		12,539,672		34,230,637	
Square timber..... Cub. ft.	687,728		1,555,307		19,000				2,262,035	
Staves..... No.	106,972		211,436				34,000		352,408	
Firewood..... Cords.	179		201						380	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	317	106,048	427	118,071	208	172,873	268	92,442	1220	489,434
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<b>1889.</b>										
Wheat .....	38,127		28,054		1,679		46,767		114,627	
Corn .....	60,218		43,819		152,858		96,700		353,595	
Barley .....										
Oats .....	320				25,347		2,145		27,812	
Pease .....										
Rye .....	948		634		336				1,918	
Coal .....	3,976		21,148		712		1,664		27,500	
Miscellaneous merchandise ..	6,339		5,749		25,082		3,030		40,200	
Shingles, woodenware, &c. ....			1				51		52	
Sawed lumber..... Ft. B. M.	5,789,226		11,632,330		11,792,850		21,026,211		50,240,617	
Square timber..... Cub. ft.	924,645		2,934,989						3,859,634	
Staves..... No.	35,700		194,649						220,349	
Firewood..... Cords.			46						46	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	342	110,056	443	117,400	202	204,542	142	50,622	1129	482,620
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<b>1890.</b>										
Wheat .....	43,308		35,633		7,514		32,239		118,694	
Corn .....	63,095		51,439		172,756		40,104		327,394	
Barley .....					3,304		3,215		6,519	
Oats .....	479		73		27,030				27,582	
Pease .....					14				14	
Rye .....	1,121								1,121	
Coal .....	1,049		21,732				615		23,396	
Miscellaneous merchandise ..	3,146		5,683		32,194		2,510		43,533	
Shingles, woodenware, &c. ....	15		1,266		8				1,289	
Sawed lumber..... Ft. B. M.	5,921,240		5,167,201		10,274,335		14,290,800		35,653,576	
Square timber..... Cub. ft.	1,141,194		3,395,832						4,537,026	
Staves..... No.	12,255		19,947						32,202	
Firewood..... Cords.	15		566						581	

## I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &amp;c.—Continued.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	256	107,575	173	68,061	241	241,317	130	50,063	800	467,016
Tons.		Tons.		Tons.		Tons.		Tons.		
1891.										
Wheat.....	62,859		56,953		36,425		33,853		190,090	
Corn.....	20,510		9,550		137,852		17,039		184,951	
Barley.....					5,444		4,061		9,505	
Oats.....					50,212		1,076		51,288	
Pease.....	390								390	
Rye.....	29,581		11,296		16,361		7,343		64,581	
Coal.....	158		20,388				3,851		24,397	
Miscellaneous merchandise ..	8,369		6,007		37,537		2,578		54,491	
Shingles, woodenware, &c....							4		4	
Sawed lumber..... Ft. B.M.	4,268,874		4,648,824		8,067,351		18,745,628		35,730,677	
Square timber..... Cub. ft.	449,406		566,109						1,015,515	
Staves..... No.	1,000								1,000	
Firewood..... Cords.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	239	100,324	186	73,140	245	248,837	134	52,087	804	474,388
Tons.		Tons.		Tons.		Tons.		Tons.		
1892.										
Wheat.....	74,578		54,764		60,364		36,898		226,604	
Corn.....	17,477		7,369		146,080		21,631		192,548	
Barley.....					3,995		2,438		6,433	
Oats.....					36,935				36,935	
Pease.....	524								524	
Rye.....	5,066				3,718		608		9,392	
Coal.....	775		13,350				1,365		15,490	
Miscellaneous merchandise ..	2,139		2,786		44,117				49,042	
Shingles, woodenware, &c....	1				45		9		55	
Sawed lumber..... Ft. B.M.	6,278,253		7,504,256		10,494,692		26,832,564		51,109,765	
Square timber..... Cub. ft.	754,213		1,421,260		2,601		1,310		2,179,384	
Staves..... No.	46,800		32,838						79,638	
Firewood..... Cords.										

## Department of Railways and Canals.

### I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &c.—Continued.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	199	100,107	143	58,652	390	375,682	236	122,326	962	656,767
	Tons.		Tons.		Tons.		Tons.		Tons.	
1893.										
Wheat.....	83,447		31,185		72,671		68,628		255,931	
Corn.....	23,317		12,946		313,246		91,083		441,092	
Barley.....	1,527		183		16,189		562		18,461	
Oats.....	223				27,903		3,038		31,164	
Pease.....										
Rye.....					3,216		455		3,671	
Coal.....	638		13,580				5,849		20,067	
Miscellaneous merchandise...	6,179		286		44,976		1,647		53,088	
Shingles, woodenware, &c....			15		22				37	
Sawed lumber..... Ft. B.M.	13,750,267		2,748,941		17,359,573		41,863,852		75,722,633	
Square timber..... Cub. ft.	836,048		1,437,893		5,133				2,279,074	
Staves..... No.			18,484						18,484	
Firewood..... Cords.										

### I.—STATEMENT showing the Quantity of through Freight passed down the Welland Canal in Canadian and United States Vessels entering the Canal at Port Colborne during the Season of Navigation, in 1894.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	199	104,640	112	57,668	287	279,621	144	63,770	742	505,708
	Tons.		Tons.		Tons.		Tons.		Tons.	
1894.										
Wheat.....	98,586		54,444		78,715		37,095		268,840	
Corn.....	10,368		5,614		122,211		31,040		169,233	
Barley.....	258				28,095				28,353	
Oats.....	175		107		27,621				27,903	
Pease.....										
Rye.....										
Coal.....	1,483		1,892		61		11,109		14,545	
Miscellaneous merchandise...	16,949		664		83,198		1,977		102,788	
Shingles, woodenware, &c....									22	
Sawed lumber..... Ft. B.M.	8,423,295		279,330		11,719,664		31,891,456		52,313,745	
Square timber..... Cub. ft.	771,328		1,578,981						2,350,309	
Staves..... No.										
Firewood..... Cords.										

STATEMENT showing the Quantity of Through Freight passed up the Welland Canal in Canadian and United States Vessels, entering the Canal at Port Dalhousie, during the Season of Navigation in 1894.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	194	102,251	111	56,969	274	272,994	150	67,295	729	499,509
1894.	Tons.		Tons.		Tons.		Tons.		Tons.	
<i>Class 3.</i>										
Cement and water lime .....	2,281		Nil.						2,281	
Fish .....	3				778				781	
Iron, pig .....	20				17				37	
Iron, all other .....	212				327				539	
Salt .....	856								856	
Steel .....	248								248	
Articles not enumerated .....	914				428				1,342	
<i>Class 4.</i>										
Crockery and earthenware .....	107				3				110	
Marble .....					847				847	
Manilla .....	11				89				100	
Nails .....	535								535	
Paint .....	18								18	
Pitch and tar .....	265								265	
Sugar .....	2,733				1,234				3,967	
Tin .....	327								327	
Merchandise not enumerated .....	1,999				39,268		1		41,268	
<i>Class 5.</i>										
Produce of wood .....	58				89				147	
<i>Special Class.</i>										
Coal .....	635				136,345		52,083		189,063	
Ice .....	200								200	
Stone .....							661		661	
Total tons .....	11,422				179,425		52,745		243,592	

				Tons.
Canadian steam vessels carried .....				11,422
do sailing do .....				
United States do .....				179,425
do sailing do .....				52,745



# Department of Railways and Canals.

## WELLAND CANAL THROUGH FREIGHT RECAPITULATION.

### WELLAND CANAL—WEST BOUND FREIGHT.

The total quantity of through freight passed up the Welland Canal in Canadian and United States Vessels during the season of navigation in 1894, is as follows:—

Summary.	Tons.	Tons.
In Canadian steam vessels.....	11,422	
do sail do .....		
Total quantity in Canadian vessels .....		11,422
In United States steam vessels.....	179,425	
do sail do .....	52,745	
Total in United States vessels.....		232,170
Grand total quantity of freight passed up the Welland Canal in Canadian and United States vessels.....		243,592

**SUMMARY** of the quantity of through freight passed on the Welland Canal during the season of Navigation in 1894.

Summary.	Tons.	Tons.
In Canadian steam vessels, up.....	11,422	
do do down .....	157,320	
Total in Canadian steam vessels.....		168,742
In Canadian sail vessels, up .....		
do do down.....	94,784	
Total in Canadian sail vessels.....		94,784
Total quantity in Canadian vessels.....		263,526
In United States steam vessels, up.....	179,425	
do do down.....	359,444	
Total quantity in United States steam vessels.....		538,869
In United States sail vessels, up.....	52,745	
do do down.....	134,394	
Total quantity in United States sail vessels.....		187,139
Total quantity in United States vessels.....		726,008
Total in Canadian and United States vessels.....		1,89,534
	East-bound.	West-bound.
In Canadian vessels.....	252,104	11,422
In United States vessels.....	493,838	232,170
Total.....	745,942	243,592



# Department of Railways and Canals.

do	15 W. J. Averill.....	1,425	265	36	6	16	5	14	11	15	4	49,791	25,411	452	10,357	4,294	291	73	
do	26 J. R. Langdon.....	1,950	240	42	0	16	8	14	5	14	6	43,383	23,058	315	6,050		179		
do	27 Wm. A. Haskill.....	1,441	265	37	0	16	8	15	4	15	8	35,730	23,058	365	6,384		170		
do	30 A. McVittie.....	1,553	240	42	0	16	8	14	5	15	9	46,085	28,235	821	15,428		433	120	
June	1 F. A. Prince.....	1,548	240	42	0	16	8	14	7	14	9	29,791	37,647	500	4,209	7,059	118		
do	3 W. J. Averill.....	1,425	265	36	6	16	5	14	7	15	0	34,463	28,235	995	12,543		199		
do	14 J. R. Langdon.....	1,550	240	42	0	16	8	14	7	15	0	38,280	28,235	794	5,810		163		
do	21 A. McVittie.....	1,653	240	42	0	16	8	14	1	15	0	56,014			4,999		140		
do	23 Dewar.....	1,029	222	37	0	19	0	14	11	14	6	43,590		730	7,634		197		
do	24 F. H. Prince.....	1,548	240	42	0	16	5	14	4	15	0	43,590		937	4,910		138		
do	25 W. J. Averill.....	1,425	265	36	6	16	8	14	4	14	7	25,888		497	11,655		327		
do	28 H. R. James.....	1,553	240	42	0	16	8	15	0	15	5	55,183		407	9,652		271		
July	6 J. R. Langdon.....	1,550	240	42	0	16	8	14	4	15	8	70,000			2,349		272		
do	11 A. McVittie.....	1,533	240	42	0	16	8	14	5	15	6			5,543		167			
do	18 Escanaba.....	915	201	35	6	20	1	15	1	14	8	40,106		704	4,295		118		
do	31 Gov. Smith.....	1,547	240	42	0	16	8	13	7	15	0	36,595		554	2,438		69		
Aug.	1 J. R. Langdon.....	1,550	240	42	0	16	8	12	1	14	6	60,101		172	4,822		136	174	
do	9 F. H. Prince.....	1,550	240	42	0	16	8	14	3	14	7								
do	21 J. R. Langdon.....	1,550	240	42	0	16	8	14	0	14	3		74,647			10,235		161	
do	23 Wm. A. Haskill.....	1,441	265	37	0	16	6	14	9	14	8	20,184		355		9,471			
Sept.	2 Escanaba.....	918	201	35	6	20	0	14	11	14	4	50,000		461	6,835		156		
do	5 Wm. J. Averill.....	1,425	265	36	6	16	5	14	8	15	1	32,347		404	3,124		94		
do	9 F. H. Prince.....	1,548	240	42	0	16	8	14	4	14	7		87,882		270	10,993		330	
do	13 Jas. R. Langdon.....	1,550	240	42	0	16	8	13	11	15	0	31,850		487	4,461		125		
do	14 W. A. Haskill.....	1,441	265	37	0	16	6	14	8	15	0	44,786		407	13,154		369		
do	18 A. McVittie.....	1,547	240	42	0	16	8	13	11	14	3		61,471		426	4,882		83	
do	24 Gov. Smith.....	1,547	210	42	0	16	8	13	11	14	3		47,058		928	1,823		31	
do	30 H. K. James.....	1,553	240	42	0	16	8	12	8	14	10		47,058		1,299	4,882			
Oct.	4 Jas. R. Langdon.....	1,550	240	42	0	16	8	13	7	14	3	14,855		1,299	2,257		64		
do	10 A. McVittie.....	1,553	24	42	0	16	8	13	3	14	11	45,325		514	3,967		112		
do	18 F. A. Prince.....	1,548	24	42	0	16	8	13	3	14	11	24,201		1,092	3,928		110		
do	25 Jas. R. Langdon.....	1,556	24	42	0	16	8	13	6	14	7	30,000		972	3,782		187		
Nov.	7 A. McVittie.....	1,553	240	42	0	16	8	14	8	14	6	58,303		1,049	6,662		177		
do	18 H. R. James.....	940	215	34	6	18	9	14	8	14	6	50,000			6,314		187		
do	22 Omaha.....	1,111	138	37	6	23	0	11	0	13	11	47,000			4,912		138		
do	25 A. G. Lindsay.....	1,111	138	37	6	23	0	11	0	14	0	35,000			6,697		188		
do	25 Escanaba.....	918	201	35	6	20	0	14	0	14	0	47,000		459	6,009		169		
Dec.	1 A. McVittie.....	1,553	240	42	0	16	8	14	3	14	10	35,000			2,106		59		
do	1 Josephine.....	617	165	31	6	19	0	14	0	14	0	41,000			5,235				
	Total.....											1,681,865	3,000	534,053	55,910	63,410	1,688	7,317	1,078
												368,459							

**J.—STATEMENT of Large Class Vessels Lightened at Welland Railway Elevator at Port Colborne; showing the Tonnage, Dimensions, Depth of Water and Cargoes passed through the Enlarged Welland Canal during the season of Navigation in 1894—Continued.**

CANADIAN STEAM VESSELS—Continued.

Date of Arrival.	Names of Vessels.	Grain Cargo and Rolling Freight through the Canal.								Total Cargo through the Canal.	Depth of Water through the Canal Midship.	Destination.		Cost of Lighthouse per bushel.	Time occupied in Light-erage.
		Wheat.	Corn.	Barley.	Oats.	Wheat.	Corn.	Barley.	Oats.			Rolling freight	From.		
		Bush.	Bush.	Bush.	Bush.	Tons.	Tons.	Tons.	Tons.	Tons.	Ft. in.			Cts.	H. M.
1894.															
Sept. 26	Algonquin.....	62,231				1,867					13 11	Ft William.	Ogdensburg.	2	7 0
26	do	53,475				1,604					12 8	do	Kingston	2	30
30	do	57,705				1,732					12 9	do	do	2	20
Oct. 29	Algonquin.....	62,996				1,890					13 10	do	do	2	5 49
do	do	57,075				1,713					12 8	do	do	2	1 50
Nov. 8	Rosedale.....	59,401				1,783					13 5	do	do	2	6 20
do	do	56,184				1,686					12 8	do	do	2	2 15
do	Rosedale.....	403,067				12,275						do	do	7	
	Total.....														

UNITED STATES STEAM VESSELS—Continued.

Date of Arrival.	Names of Vessels.	Grain Cargo and Rolling Freight through the Canal.								Total Cargo through the Canal.	Depth of Water through the Canal Midship.	Destination.		Cost of Lighthouse per bushel.	Time occupied in Light-erage.
		Wheat.	Corn.	Barley.	Oats.	Wheat.	Corn.	Barley.	Oats.			Rolling freight	From.		
		Bush.	Bush.	Bush.	Bush.	Tons.	Tons.	Tons.	Tons.	Tons.	Ft. in.			Cts.	H. M.
April 19	Columbia.....		53,122								13 8	Chicago	Ogdensburg.	2	3 50
do	do		56,560						145		13 10	do	do	2	4 20
do	F. H. Prince.		24,918			622			353		13 7	do	do	2	4 15
do	H. R. James.	20,713							420		13 7	do	do	2	3 0
do	J. E. Langdon.		46,511			1,303					13 10	do	do	2	1 0
do	do		47,058			1,318					13 10	do	Kingston.	2	2 45
do	Egyptian.....		27,700			776			480		13 11	do	Ogdensburg.	2	3 15
May 7	Wm. A. Haskill.	25,294				517			308		13 11	do	do	2	3 40
do	do	32,216				547					14 10	do	Kingston.	2	3 30
do	Jno. Duncan.		39,357			967					14 0	do	Ogdensburg.	2	2 15
do	Oregon.....		20,935			1,102					13 11	do	do	2	2 20
do	F. H. Prince.	22,992				680			516		13 10	do	do	2	2 20
do	Pueblo.....		51,816			1,451						do	do	2	2 20

# Department of Railways and Canals.

do	15 W. J. Averill	39,434	1,105	452	1,557	14 0	do	do	2	3 40
do	26 J. R. Langdon	37,333	1,046	359	1,720	14 0	do	do	2	3 25
do	27 Wm. A. Haskill	29,406	824	392	1,581	14 0	do	do	2	4 50
do	30 A. McVittie	30,657	859	821	1,680	14 0	do	do	2	2 10
June	1 F. A. Prince	25,449	713	520	1,733	13 11	do	do	2	2 40
do	3 W. J. Averill	22,686	636	480	1,571	14 0	do	do	2	2 50
do	14 J. R. Langdon	21,920	614	995	1,609	13 6	do	do	2	2 0
do	21 A. McVittie	32,479	910	794	1,704	14 0	do	do	2	1 40
do	23 Dewar	50,015	1,401	730	1,754	13 11	do	do	2	2 0
do	24 F. H. Prince	36,556	1,024	937	1,525	14 0	do	do	2	2 30
do	25 W. J. Averill	20,978	588	497	1,716	14 0	do	do	2	3 0
do	28 H. R. James	43,598	1,219	407	1,673	13 6	do	do	2	4 0
July	6 J. R. Langdon	30,348	850	416	1,689	14 0	do	do	2	3 10
do	11 A. McVittie	60,298	1,689	407	1,589	14 0	do	do	2	4 35
do	18 Escanaba	44,457	1,334	704	1,834	14 0	do	do	2	1 30
do	31 Gov. Smith	35,901	1,005	704	1,710	13 9	do	do	2	2 0
Aug.	1 J. R. Langdon	84,157	957	554	1,511	13 2	do	do	2	2 45
do	9 F. H. Prince	55,279	1,548	531	1,720	14 0	do	do	2	3 15
do	21 J. R. Langdon	20,184	566	355	1,600	14 0	do	do	2	3 0
do	23 Wm. A. Haskill	43,165	1,295	464	1,235	14 0	do	do	2	3 0
Sept.	2 Escanaba	8,876	751	409	1,482	13 11	do	do	2	7 0
do	5 Wm. J. Averill	26,802	1,321	409	1,743	14 0	do	do	2	4 0
do	9 F. H. Prince	44,007	767	270	1,591	13 6	do	do	2	2 0
do	13 Jas. R. Langdon	27,389	886	487	1,585	14 0	do	do	2	3 35
do	14 W. A. Haskill	11,012	331	426	1,695	13 11	do	do	2	3 40
do	18 A. McVittie	12,745	383	769	1,697	14 0	do	do	2	2 30
do	24 Gov. Smith	23,854	886	717	1,715	13 0	do	do	2	2 30
do	30 H. K. James	42,176	353	1,299	1,652	13 10	do	do	2	2 0
Oct.	4 Jas. R. Langdon	12,598	1,159	514	1,673	13 8	do	do	2	2 30
do	10 A. McVittie	41,368	568	1,092	1,660	13 5	do	do	2	1 40
do	18 F. A. Prince	20,273	637	972	1,609	13 7	do	Duluth,	2	2 0
do	25 Jas. R. Langdon	23,838	654	1,049	1,703	13 11	do	Chicago	2	3 0
do	18 H. R. James	51,869	1,456	1,456	1,456	13 8	do	do	2	4 20
do	25 Omaha	45,088	1,263	1,263	1,263	13 5	do	Toledo,	2	6 00
do	25 A. G. Lindsay	28,991	1,129	459	1,129	13 0	do	do	2	2 45
Dec.	1 Escanaba	30,000	812	286	1,623	13 7	do	Chicago	2	7 10
do	1 A. McVittie	38,894	1,090	72	1,690	13 8	do	do	2	9 20
do	1 Josephine	312,549	30,000	72	78,780	.....	do	do	.....	.....
	Total	1,421,208	39,813	8,001	21,512	.....	do	do	.....	.....
		470,643	9,382	72	8,001	.....	do	do	.....	.....
		30,000	39,813	72	8,001	.....	do	do	.....	.....



Department of Railways and Canals.

J.—Statement of Large Class Vessels Lightened at Welland Railway Elevator at Port Colborne; showing the Tonnage, Dimensions, Depth of Water and Cargoes passed through the Enlarged Welland Canal during the season of Navigation in 1894—Concluded.

UNITED STATES SAILING VESSELS.

Date of Arrival.	Names of Vessels.	Grain Cargo and Rolling Freight through the Canal.										Total Cargo through the Canal.	Depth of Water through Canal midship.	Destination.		Cost of Lighterage per bushel.	Time occupied in Lighterage.	
		Wheat.	Corn.	Barley.	Oats.	Wheat.	Corn.	Barley.	Oats.	Rolling freight	From			To				
		Bush.	Bush.	Bush.	Bush.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Ft. in.			Cts.	H. M.	
1894.																		
23 May	M. C. Bell	41,741				1,253							14 0	Chicago	Ogdensburg	2	1 0	
28 June	E. C. Hutchinson	42,875				1,287							13 11	Duluth	Oswego	2	4 0	
	Total	84,616				2,540												

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

K.—STATEMENT showing the Quantity of Freight passed Eastward, from Lake Erie, through the whole length of the Welland and St. Lawrence Canals, to Montreal, during the Seasons of Navigation in 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893 and 1894.

Articles.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1890.	1891.	1892.	1893.	1894.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Iron, pig.....	459			7	15		418			371			195
do all other.....	9	5											1
Stone for cutting.....	2			513	49	33					54		50
Apples.....	1											600	258
Barley.....	259		38										60,611
Corn.....	17,474	109,191	55,552	44,401	116,517	24,609	66,443	195,350	139,798	52,539	53,689	278,564	16,503
Flour.....	5,920	5,089	9,659	2,874	2,934	6,140	3,865	6,841	3,065	3,324	2,874	5,514	4
Meal, all kinds.....	1,188	1,188		16	125	87	100	148	222	47	16		175
Oats.....		872						329	479			9,751	
Pease.....		726	433	11	608	362				390	524		
Rye.....	1,269	518	477					1,284	1,120	64,978	9,119	3,669	
Seeds, all kinds.....	37	2		42	33		12	3	2	2	75		
Tobacco, raw.....	1			25						1			
Wheat.....	161,692	76,379	84,822	52,157	86,815	160,063	93,915	70,815	75,515	150,785	194,281	209,212	212,557
All other agricultural products, vegetable.....	1			1		17		798	3	2			29
Hides, skins, horns and hoofs.....											20		
Horses.....	1			2	1	1		2	3	2	2	1	1
Lard and lard oil.....	206	6		22	54		54		100	100			
Pork.....	278	318		30	936	418	265	1,220	221	201			717
All other agricultural products, animals.....				4	68	29	39	32	117		103		
Total, Class 3.....	187,609	193,393	152,171	100,058	208,148	191,759	165,113	276,813	220,545	281,762	260,757	507,321	291,151
<i>Class 4.</i>													
Ashes.....	10	3	36	97	44	113	85	107	70	40	17	23	19
Furniture.....	12	6	10	5	6	9	2		1	2	1		2
Glass, all kinds.....	6	1					3		1	1			
Molasses.....	18	43			28								
Nails.....	1		78			1							
Oil.....	425			7	6	14		4	6				



Department of Railways and Canals.

K.—STATEMENT showing the Quantity of Freight passed Eastward, from Lake Erie, &c.—Concluded.

Articles.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4—Concluded.</i>													
Paint.....	4				1								
Pitch and tar.....	1												
Sugar.....		2				15							
Stones, wrought.....	484	269	317			12							
Turpentine.....	2		1										
Whisky, beer, and other spirits..	25	35			8		3	20	26	105	6	1	
Merchandise not enumerated....	105	53	37		100	72	105	193	142	278	36	4	339
Total, Class 4.....	1,092	412	480	138	193	236	198	324	246	426	60	28	351
<i>Class 5.</i>													
Barrels, empty.....	3		37	128	6	88	40					1	
Sawed lumber.....	3,639	6,311	7,531	19,945	18,707	7,001	5,175	6,118	3,579	3,908	1,678	667	683
Staves, pipe and barrel.....	2,359	2,024	200	856	332	184	139				200		
do West India and pipe.....	1,130	451	863		287	131	1,623	270					
Timber, square, in vessels.....	1,574	290		639	1,330								
do do.....	1,149	2,314	7,365	11,128	15,410	14,390	11,586	9,302	1	5,680	400		
Woodenware.....	205	199	68	76	101	45	25						6
Total, Class 5.....	10,059	11,589	16,004	32,772	36,173	21,839	18,588	15,690	3,580	9,588	2,327	667	689
<i>Special Class.</i>													
Coal.....	75												
Grand total.....	198,835	205,394	168,715	132,968	244,514	213,834	183,899	292,827	234,371	291,776	263,144	508,016	292,191

L.—STATEMENT showing the Quantity of Freight passed Westward from Montreal, through the whole length of the St. Lawrence and Welland Canals to Lake Erie, during the Season of Navigation in 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893 and 1894.

Articles.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks	96	78	200	44	66	3	187	84	252	469	1,570	3,169	1
Cement and water lime	533	508	219	117	498	1,740	1,177	823	62	2,380	2,281	2,281	2,281
Clay, lime and sand.	56	56			1	134	95	3	8	206	240	240	253
Fish	406				1	95	1	80	26	7	426	465	512
Gypsum				13									
Iron, railway	11,246	8,725	2,031	12,356	6,629	153	9,148	15,513	20,003	2,855	1,171	6,576	20
do pig	3,575	2,400	43	23	10	368	573	250	20	112	74	25	
do all other	686	528	366	290	76	1,997	297	290	584	595	387	543	114
Salt	1,820	5,324	802	1,574	5,609	4,197	3,539	4,216	7,440	4,301	2,034	995	843
Stone for cutting				7					12		145		
Flour		21					31		48			3	15
Meals		5											
Oats		264											
Potatoes	23					4							33
Seeds, all kinds.	14						24	215	100				
Agricultural products not enumerated, vegetables													
Horses		25	1	1			35	19		52			5
Lard and lard oil				3		3		2	72		16		
Pork			45						38				
Wool	3				6	4	77		13	2	13		10
All other articles not enumerated.						4			1	2			
Total Class 3	18,460	17,994	3,707	14,428	12,896	8,702	15,244	21,495	28,674	11,071	6,076	11,776	4,987
<i>Class 4.</i>													
Ashes, pot and pearl				226	20				10	31	88		
Crockery and earthenware	116	137	47	10	40	164	336	112	11	251	8	98	107
Dye woods, &c		2			1	4							
Furniture	4	4	1		9	1	1			1	3		
Glass, all kinds	359	156	160	52	39	53	77	71	23	30	152	365	175
Manilla	5	5	17		7	5	1						11
Molasses	58	3			23	1	7	56			32	43	42

## Department of Railways and Canals.

L.—STATEMENT showing the Quantity of Freight passed westward from Montreal, &c.—Continued.

Articles.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4—Concluded.</i>													
Nails.....	576	1,065	160	205	389	147	578	736	453	560	276	472	500
Oil, in barrels.....	119	122	80	10	82	28	22	9	11	64	2	44	8
Faint.....	124	103	161	24	36	80	59	49	24	61	15	70	8
Pitch and tar.....		50	1		5	1			13	22	15	26	152
Rosin.....	11	21							1				
Soda, ash.....	1,040	1,801	1,427	164	975	1,116	1,196	766	554	377	352	68	94
Steel.....		3	142		1	423	3	3	1		269	426	248
Stone, wrought.....		2								412	1,320	14	2,724
Sugar.....	465	375	290	64	316	207	98	7	551	412	1,320	2,218	
Tin.....	641	1,659	1,832	10	549	2,225	198	480	40	23	27	34	327
Turpentine.....		1	1		1	1	1	1	2				
White lead.....	14		3		3	4	2	4	19	3	6	35	2
Whiting.....	5	19		9		7		33	34	50	71	31	1
Whiskey, beer, &c.....	564	791	364	239	174	287	228	124	350	294	220	26	53
Merchandise not enumerated.....	1,992	2,608	1,001	712	1,068	619	1,259	1,422	1,180	810	538	799	900
Total, class 4.....	6,093	8,957	5,687	1,725	3,678	5,373	4,066	3,873	3,277	2,989	3,304	4,769	5,352
<i>Class 5.</i>													
Barrels, empty.....	130	179			227			2					
Lumber, sawn, in vessels.....	175	318											
Woodenware.....	23		3	2									
Total, class 5.....	328	497	3	2	227								
<i>Special Class.</i>													
Coal.....		40	28										
Grand Total.....	24,861	27,488	9,425	16,155	16,801	14,075	19,310	25,370	31,951	14,060	9,470	16,545	9,439

M.—STATEMENT showing the Quantity of Freight passed Eastward through the Welland Canal, from United States Ports to United States Ports, during the Seasons of Navigation in 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893 and 1894.

Articles.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks.....					41				4				
Cement and water lime.....	3				31		4			1			5
Fish.....	2					2							
Iron, railway.....		142											
do all other.....	114	90	40		45			520	1	10	1	102	
Salt.....		8			1					494			
Stone for cutting.....		38	15										
Apples.....	8												
Barley.....	537	735				1,709			6,519	8,113	6,433	16,751	28,095
Corn.....	32,433	66,128	53,707	63,229	93,503	83,431	102,974	147,045	180,842	127,494	131,222	198,777	105,329
Flour.....	107	2,041	1,715	124	7,591	11,780	8,563	5,017	9,204	6,802	11,018	6,588	17,795
Hay, pressed.....			13		13,201	10,726	11,598	17,224	20,482	26,096	31,724	36,352	60,390
Meal, all kinds.....	5	8,579	8,170										29
Oil cake.....		1			4,790	12,050	26,510	27,492	27,030	52,823	36,935	23,870	27,621
Oats.....		731	9,874	882				1	1				
Potatoes.....	1											864	
Rye.....	684				236		179						
Seeds, all kinds.....		682	511			44	48	151	135	256	50	16	
Wheat.....	30,227	54,282	40,956	53,235	53,258	37,672	39,989	39,229	31,527	32,097	26,950	28,187	53,846
Agricultural products, vegetable.....	5	3			2	2			14	42			
Hides and skins, &c.....		60	73		414	170	39		1	3		2	4
Horses.....	1	6	6		1			1	1				
Lard and lard oil, &c.....		5	7		13	14	19	32	30	10			
Meats, other than pork.....	1	12	4		1	18	14	14	15	2	29		
Pork.....	1	163			106	108	19	21	88	73	1	52	56
Sheep.....													
Wool.....		95	1		1,125	86	18	452		1,237	70	80	1,486
Total, Class 3.....	64,129	133,782	115,092	117,470	174,359	157,820	189,886	237,188	275,893	255,553	244,433	311,647	294,654
<i>Class 4.</i>													
Agricultural implements.....		1				9							
Crockery and earthenware.....	1	1						1					
Furniture.....	15	25	16		21	24	30	30	21	7		6	

# Department of Railways and Canals

M.—STATEMENT showing the Quantity of Freight passed Eastward through the Welland Canal, &c.—Concluded.

	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Articles.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4—Concluded.</i>													
Glass, all kinds.....	66		1		2					1			
Nails.....	7	51	26		4								57
Oil, in barrels.....	995	206	255		6	8				1			
Faint.....	3	6							3		44		
Soda, ash.....	1										1		
Steel.....	33	87	7		38			2					
Stone, wrought.....	6												
White lead.....	12	156	26		21	63	151	190	1	167	46	83	
Whisky, beer and all other spirits.....	91	941	481	2	824	469	1,453	1,679	1,822	1,865	1,331	1,693	2,976
Merchandise, not enumerated.....													
Total, Class 4.....	1,237	1,479	812	2	916	573	1,638	1,902	2,075	2,041	1,422	1,782	3,033
<i>Class 5.</i>													
Empty barrels.....	34,182	34,189	43,713	44,668	43,776	29,345	28,333	55,074	38,030	45,504	54,173	68,985	62,905
Lumber, sawn, in vessels.....												9	
Hoops.....			76	111	463		6	51					13
Shingles.....	9	25					82						
Staves, barrel.....		30	11		2	26	141	333	8	4	54		
Woodenware, &c.....	43												
Total, Class 5.....	34,234	34,279	43,800	44,779	44,241	29,371	28,562	55,468	38,038	45,508	54,227	69,007	62,905
<i>Special Class.</i>													
Coal.....	10,686	5,372	4,293	4,974	5,400	1,163	878	1,124	615	1,382	651	2,123	727
Stone, not suitable for cutting.....								1,681	18				
Kryolite.....									1,620	1,773			
Total, Special Class.....	10,686	5,372	4,293	4,974	5,400	1,163	878	2,805	2,283	3,155	651	2,123	727
Grand Total.....	110,286	174,912	163,997	167,225	224,916	189,427	221,064	297,363	318,259	306,257	900,733	384,559	361,319

N.—STATEMENT showing the Number of Vessels and their Cargoes of Wheat, from ports west of Port Colborne to Montreal; the Quantity transhipped at Kingston and the Quantity of each Cargo through the St. Lawrence Canals, during the Season of Navigation in 1894.

Names of Vessels.	Original Cargo through the Welland Canal.	Quantity transhipped at Kingston.	Cargo through the St. Lawrence Canals.
	Tons.	Tons.	Tons.
Canadian steamer "Acadia" .....	660	175	485
do do .....	600	135	465
do do .....	510		510
do "Arabian" .....	1,230	675	555
do do .....	1,230	689	541
do do .....	1,230	690	540
do do .....	1,246	720	526
do do .....	1,207	712	495
do "Cuba" .....	660	268	392
do "Lake Michigan" .....	504	177	327
do do .....	510	213	297
do do .....	390	193	197
do "St. Magnus" .....	1,005	584	421
do do .....	990	569	421
do do .....	934	633	301
Norwegian steamer "Craggs" .....	300		300
Canadian sailing vessel "Kildonan" .....	1,110	240	870
Total .....	14,316	6,673	7,643

Number of cargoes of wheat .....	17
Quantity through Welland Canal to Kingston .....	14,316 Tons.
do transhipped at Kingston .....	6,673 "
do taken to Montreal in vessels in which it arrived at Kingston....	7,643 "

N.—STATEMENT showing the Number of Vessels and their Cargoes of Corn, from ports west of Port Colborne to Montreal; the Quantity transhipped at Kingston, and the Quantity of each Cargo, through the St. Lawrence Canals, during the Season of Navigation in 1894.

Names of Vessel.	Original Cargo through the Welland Canal.	Quantity transhipped at Kingston.	Cargo through the St. Lawrence Canals.
	Tons.	Tons.	Tons.
Canadian steamer "Arabian" .....	1,153	618	535
do "Cuba" .....	644	291	353
do "Lake Michigan" .....	484	175	309
Canadian sailing vessel "Winnipeg" .....	1,498	784	714
Total .....	3,779	1,868	1,911

Number of cargoes of corn .....	4
Quantity through the Welland Canal to Kingston .....	3,779 Tons.
do transhipped at Kingston .....	1,868 "
do taken to Montreal in vessels in which it arrived at Kingston....	1,911 "

## Department of Railways and Canals.

**RECAPITULATION of the Number of Vessels passed down the Welland Canal, with Cargoes of Grain to Kingston, the Quantity transhipped, and the Quantity taken to Montreal for the Season of 1894.**

	Number of Cargoes.	Total.
Wheat.....	17	
Corn.....	4	
Total.....		21
Quantity of wheat through the Welland Canal bound for Montreal.....	Tons. 14,316	Tons.
do corn do do .....	3,779	
Total through Welland Canal.....		18,095
Quantity of the above transhipped at Kingston, viz. :—		
Wheat.....	6,673	
Corn.....	1,868	
Total quantity transhipped.....		8,541
Quantity of the above cargoes taken to Montreal in vessels in which it arrived at Kingston, viz. :—		
Wheat .. .	7,643	
Corn .. .	1,911	
Total quantity to Montreal.....		9,554
Total .....		18,095

O.—STATEMENT showing the quantity of Grain passed down the Welland Canal to Kingston, in Canadian and United States Vessels, entering the Canal at Port Colborne during the season of navigation in 1894.

	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	86	61,651	39	28,930	60	49,582	24	15,155	209	155,318
	Tons.	Tons.	Tons.	Tons.	Tons.	Total Tons.				
Barley.....	258								258	
Corn.....	10,368	5,614	30,232	17,690	63,904					
Oats.....	175	107			282					
Wheat.....	90,750	51,873	45,880	12,434	200,937					
<b>Totals.....</b>	<b>101,551</b>	<b>57,594</b>	<b>76,112</b>	<b>30,124</b>	<b>265,381</b>					

86 cargoes in Canadian steam vessels ; total quantity..... 101,551 tons.  
 39 do do sail do ..... 57,594 do  
 60 do United States steam vessels ; total quantity..... 76,112 do  
 24 do do sail do ..... 30,124 do



## Department of Railways and Canals.

P.—TOTAL quantity of Grain arrived at Kingston in Vessels which passed down the Welland Canal during the season of 1894.

Summary.	Tons.	Tons.
Canadian steam vessels—86 cargoes of grain .....	101,551	
do sailing do 39 do .....	57,594	
Total in Canadian vessels .....		159,145
United States steam vessels—60 cargoes of grain .....	76,112	
do sailing do 24 do .....	30,124	
Total in United States vessels .....		106,236
Total in Canadian and United States vessels .....		265,381
Distributed as follows :—		
21 cargoes arrived at Kingston in Canadian vessels with an aggregate quantity of Transhipped at Kingston .....	18,095 8,541	
Quantity taken to Montreal in vessels in which it arrived in Kingston .....		9,554
Vessels arrived in Kingston and discharged all their cargoes as follows :—		
104 cargoes in Canadian vessels .....	141,050	
84 do United States vessels .....	106,236	
Aggregate quantity discharged .....	247,286	
Quantity transhipped to Montreal .....	232,016	
Total quantity transhipped from Kingston to Montreal .....		240,557
Quantity to Ogdensburg and transhipped to Montreal .....		576
do transhipped to Cardinal .....		3,888
do remaining at Kingston .....		10,806
Total .....		265,381

Q.—COMPARATIVE Statement of the quantity of Grain passed down the Welland Canal to Kingston for the season of 1893 and 1894.

	1893.		1894.	
	No. of Cargoes.	Tons.	No. of Cargoes.	Tons.
Quantity arrived at Kingston in Canadian vessels....	146	148,962	125	159,145
do do United States vessels	257	328,269	84	106,236
Total .....	403	477,231	209	265,381
Quantity transhipped at Kingston in Canadian vessels for Montreal .....		413,933		240,557
Quantity taken to Montreal in vessels in which it arrived at Kingston.....		15,828		9,554
Quantity remaining at Kingston.....		19,616		10,806
do transhipped to Cardinal.....		2,893		3,888
do taken to elevators at Ogdensburg, N. Y., and transhipped to Montreal.....				576
Quantity transferred to elevators at Ogdensburg, N. Y., 24,961.....				
Quantity of the above transhipped to Montreal.....		22,840		
do remaining in Ogdensburg.....		2,121		
Total .....		477,231		265,381

Two vessels took their cargoes through to Montreal intact in 1894 against none in 1893.

Nineteen vessels discharged part of their cargoes in 1894 against 34 in 1893.

One hundred and eighty-eight vessels discharged all of their cargoes in 1894 against 369 in 1893.

## Department of Railways and Canals.

S.—THE Quantity of Coal passed through the Welland Canal during a series of years from 1885 to 1894 inclusive, and the amount of Tolls collected thereon, is as follows:—

Year.	From Canadian Ports to Canadian Ports.	From United States Ports to United States Ports.		From United States Ports to Canadian Ports.		Total Tons.	Amount of Tolls Paid.
	Up.	Up.	Down.	Up.	Down.		Rate 20 cents a ton.
	Tons.	Tons.	Tons.	Tons.	Tons.		\$ cts.
1885.....		193,442	4,974	10,321	31,350	240,087	48,017 40
1886.....		184,564	5,400	22,187	49,724	261,875	52,375 00
1887.....		81,617	1,163	26,775	25,968	135,523	27,104 60
1888.....		172,381	878	17,365	27,183	217,807	43,561 40
1889.....		226,352	1,124	12,036	25,931	265,443	53,188 60
1890.....	80	116,616	615	17,280	22,781	202,372	38,222 30
1891.....		185,190	1,382	17,374	20,698	224,644	44,928 20
1892.....		183,244	651	12,391	15,330	211,616	42,284 13
1893.....		204,704	2,123	8,325	17,944	233,096	46,619 20
1894.....		187,794	727	1,269	13,947	203,737	40,789 93

NOTE.—Tolls on soft coal passed down the Welland Canal, during the season of 1890, were reduced from 20 to 10 cents a ton, per O.C. 11th May, 1890, for the season of 1890 only, the rate for 1891, 1892, 1893 and 1894 being 20 cents a ton for passage either eastward or westward.

T.—STATEMENT showing the Quantity of Coal passed through the whole length of the St. Lawrence Canals during the Seasons from 1885 to 1894 inclusive.

Year.	Quantity passed up Free of Tolls.	Quantity passed down to Montreal.	Total Quantity passed up and down.	Amount of Tolls on Quantity passed down to Montreal.
	Tons.	Tons.	Tons.	\$ c.
1885.....	5,035	122,829	127,864	18,424 35
1886.....	3,301	118,802	122,103	17,820 70
1887.....	7,579	121,618	129,197	18,242 70
1888.....	8,341	123,050	131,391	18,423 90
1889.....	5,360	124,290	129,650	18,604 90
1890.....	6,538	135,168	141,706	20,275 20
1891.....	7,951	141,701	149,652	21,255 15
1892.....	7,543	157,134	164,677	23,570 10
1893.....	2,285	147,139	149,424	22,070 85
1894.....	16,213	169,552	185,765	26,432 80

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, showing the Quantity to Montreal, the Quantity to Canadian Ports between Port Dalhousie and Cornwall, and the Quantity to United States Ports, Oswego, Ogdensburg, &c., on the south side of Lake Ontario, for the Years 1883 to 1894, inclusive.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1883.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	3	2	
Agricultural products, not enumerated, vegetable.....		3	3
do do animal.....		6	
Agricultural implements.....			1
Barley.....			735
Coal.....		89,344	5,372
Corn.....	109,191	6,815	66,128
Crockery and earthenware.....			1
Fish.....			1
Flour.....	5,089		2,041
Furniture.....	6	8	25
Glass.....	1	9	
Horses.....			6
Hides and skins.....	77	26	60
Iron, railway.....			142
do all other.....	5	39	90
Lard and lard oil.....	6	1	5
Meal, all kinds.....	1,188	138	8,579
Meats, other than pork.....		2	12
Manilla.....			4
Molasses.....	43	4	1
Nails.....			51
Oats.....			731
Oil, in barrels.....		300	206
Oil cake.....			1
Pease.....	726		
Pork.....	212	13	163
Paint.....			6
Rags.....			271
Rye.....	518		
Salt.....			8
Stone, intended for cutting.....		2,584	38
do wrought.....	269	353	87
Seeds, all kinds.....	2		662
Steel.....	1		
Sugar.....	2		
Spirits, beer, &c.....	35	98	156
Tobacco, raw.....		5	
Tallow.....		2	
Wheat.....	76,379	3,835	54,282
White lead.....			5
Wool.....			95
All other merchandise, not enumerated.....	52	109	665
Barrels, empty.....		4	
Firewood, in vessels.....		930	
Hoops.....			26
Lumber, sawn, in vessels.....	6,311	792	34,732
Staves and headings, barrel.....		31	
do do pipe.....	2,024	2,738	
do do West India.....	451	1,946	
Staves, salt barrel.....			25
Shingles.....			9
Split posts and fence rails, in vessels.....		1	
Timber, square.....	2,604	74,329	
Woodenware and wood, partly manufactured.....	199	35	30
Total.....	205,394	184,502	175,455

## Department of Railways and Canals.

### U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1884.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	36	10	
Agricultural products, not enumerated, vegetable.....		7	
do do animal.....		2	
Agricultural implements.....		9	
Barley.....	38	52	
Coal.....		32,598	4,293
Corn.....	55,552	9,552	53,707
Cattle.....		1	
Fish.....		13	
Flour.....	9,659		1,715
Furniture.....	10	17	16
Glass, all kinds.....		10	1
Hay, pressed.....			13
Horses.....		2	6
Hides, horns and hoofs.....			73
Iron, all other.....		8	40
Kryolite and chemical ore, and other ore, except iron.....		10	
Lard and lard oil.....		2	7
Meal, all kinds.....		5	8,170
Meats other than pork.....		28	4
Marble.....			1
Nails.....	1		26
Oats.....	872		9,874
Oil, in barrels.....	78	354	255
Pease.....	433		
Pork.....	318		
Rye.....	477		
Salt.....		364	
Stone, intended for cutting.....		2,059	15
do wrought.....	317	190	7
Seeds, all kinds.....		111	511
Sheep.....			1
Spirits, beer, &c.....		11	26
Turpentine.....	1		
Wheat.....	84,822	2,549	40,975
All other goods and merchandise not enumerated.....	37	104	480
Barrels, empty.....	37	3	1
Firewood, in vessels.....		930	
Lumber, sawn, in vessels.....	7,531	85	45,239
Staves and headings, barrel.....		22	
do pipe.....	200	487	
do West India.....	863	406	
Shingles.....		7	76
Timber, square.....	7,365	50,414	
Woodenware and wood, partly manufactured.....	68	3	11
Total.....	168,715	100,425	165,543

A refund of 10 cents per ton was allowed on wheat, corn, oats, barley and rye passed down to Montreal, per O. C. 28th May, 1884.

## U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &amp;c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1885.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	97		
Apples.....	513		
Agricultural products, not enumerated, vegetable.....	1		
do do animal.....	2		
Barley.....			228
Coal.....		31,350	4,974
Corn.....	44,401	9,906	63,229
Crockery and earthenware.....	1		
Flour.....	2,874		124
Furniture.....	5	11	
Horses.....	2	1	
Iron, pig.....		100	
do all other.....	7		
Iron ore.....			987
Lard and lard oil.....		2	
Meal, all kinds.....	16		
Oats.....			882
Oil, in barrels.....	7	568	
Pease.....	11		
Paint.....		68	
Pork.....	30		
Salt.....		407	
Stone for cutting.....		3,749	
do wrought.....		8	
Seeds, all kinds.....	42	10	
Spirits, beer, &c.....		25	
Tallow.....	2	4	
Wheat.....	52,157	2,003	53,235
All other merchandise, not enumerated.....	28	8	2
Barrels, empty.....	128	8	
Firewood, in vessels.....		540	
Lumber, sawn.....	19,945	6,774	49,561
Staves and headings.....	856	604	
Shingles.....			111
Timber, square.....	11,767	69,616	
Woodenware.....	76		
<b>Total.....</b>	<b>132,968</b>	<b>125,762</b>	<b>173,333</b>

A refund of 10 cents per ton was allowed on wheat, corn, oats, pease, barley and rye passed down to Montreal, per O.C. 17th June, 1885, and a refund of 18 cents per ton from 1st July, 1885, per O.C. 4th July, 1885.

## Department of Railways and Canals

### U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1886.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	44	10	11
Apples.....	49		
Agricultural products, not enumerated, vegetable.....		1	1
Bricks.....			41
Cement and water lime.....			26
Coal.....		49,724	5,400
Corn.....	116,517	8,871	93,503
Flour.....	2,934		7,591
Furniture.....	6	15	21
Glass, all kinds.....			2
Horses.....	1		1
Hides and skins, &c.....			414
Iron, pig.....		617	43
do all other.....	15	12	1
Lard and lard oil.....	22	9	13
Meal, all kinds.....	125	18	13,201
Meats, other than pork.....	67	64	1
Marble.....		2	
Molasses.....	28	7	
Nails.....			4
Oats.....		41	4,790
Oil.....	6	28	6
Pease.....	608		
Pork.....	936	407	106
Paint.....	1	1	
Rags.....			13
Salt.....		29	1
Stone for cutting.....		4,314	
do wrought.....		103	38
Seeds, all kinds.....	33	3	236
Sugar.....			3
Spirits, beer, &c.....	8	12	21
Tobacco, raw.....	25		
Tallow.....	1	2	1
Wheat.....	86,815	969	53,258
Wool.....			1,125
Merchandise, not enumerated.....	100	46	793
Barrels, empty.....	6	2	
Floats.....		20	
Lumber, sawn, in vessels.....	18,707	7,546	53,124
Masts, spars, &c.....		22	
Staves and headings, barrel.....		57	
do do pipe.....	332	339	
do do West India.....	287	444	
Shingles.....		12	463
Timber, square.....	16,740	44,335	
Woodenware.....	101	45	2
Total.....	244,514	118,127	234,254

A refund of 18 cents per ton was allowed on wheat, corn, oats, pease, barley and rye, passed down to Montreal, per O.C. 21st April, 1886.

## U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &amp;c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
	Tons.	Tons.	Tons.
1887.			
Ashes, pot and pearl .....	113		
Apples .....	33		
Agricultural products not enumerated, vegetable .....			2
Agricultural implements .....			9
Barley .....			1,709
Coal .....		25,968	1,163
Corn .....	24,609	6,898	83,431
Fish .....			2
Flour .....	6,140		11,780
Furniture .....	9	9	24
Horses .....	1	1	2
Hides, skins, &c. ....			170
Iron, pig .....		1,137	
do all other .....		7	
Lard and lard oil .....		6	14
Meal, all kinds .....	87	42	10,726
Meats, other than pork .....	29	15	18
Nails .....	1		
Oats .....			12,050
Oil .....	14	190	8
Oil cake .....	17		
Pease .....	362		
Pork .....	418	86	108
Stone, for cutting .....		3,531	
do wrought .....	12	543	
Seeds .....		4	44
Sugar .....	15		1
Spirits .....		99	63
Wheat .....	160,063	4,940	37,678
Wool .....			86
All other merchandise, not enumerated .....	72	123	468
Barrels, empty .....	88		24
Lumber, sawn .....	7,001	1,816	44,733
Staves and headings, barrel .....		27	
do pipe .....	184		
do West India .....	131	838	
Timber, square .....	14,390	21,351	
Woodenware and wood partly manufactured .....	45	1	2
Total .....	213,834	67,632	204,315

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye, passed down to Montreal, per O. C. 21st March, 1887.



## Department of Railways and Canals.

### U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1888.	Tons.	Tons.	Tons.
Ashes, pot and pearl .....	85		
Apples .....		45	
Barley .....			2
Cement and water lime .....			4
Coal .....		27,183	878
Corn .....	66,443	25,469	102,974
Crockery and earthenware .....		4	1
Flour .....	3,865		8,563
Furniture .....	2	1	30
Glass, all kinds .....	3	2	
Hay, pressed .....		20	
Horses .....	2		
Hides and skins .....			39
Iron, pig .....		549	
do all other .....	418	490	
Lard and lard oil .....	54	12	18
Meal, all kinds .....	100		11,598
Meats, other than pork .....	39	6	14
Oats .....			26,510
Oil .....		3	
Pease .....		54	
Pork .....	265	61	19
Rags .....			14
Rye .....		632	179
Stone, for cutting .....		6,535	
do wrought .....		126	
Seeds, all kinds .....	12	1	48
Steel .....			3
Sugar .....		2	4
Spirits .....	3	2	151
Tallow .....			1
Wheat .....	93,915	14,365	39,999
Wood .....			18
All other goods and merchandise not enumerated .....	105	34	1,435
Barrels, empty .....	40		133
Lumber, sawn .....	5,174	4,515	45,818
Staves and headings, barrel .....	15	7	
do pipe .....	124		
do West Indies .....	1,623	13	
do salt barrel .....	1	1	
Shingles .....			6
Timber, square, in vessels .....	11,586	33,669	
Woodenware .....	25		8
<b>Total .....</b>	<b>183,899</b>	<b>113,801</b>	<b>238,467</b>

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye passed down to Montreal, per O.C. 20th April, 1888.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed	Quantity passed	Quantity passed
	down to Montreal.	down to Canadian Ports between Port Dalhousie and Cornwall.	down to United States Ports.
1889.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	107	5	
Coal.....		25,931	1,124
Corn.....	195,350	11,200	147,045
Crockery and earthenware.....		1	1
Fish.....		5	
Flour.....	6,841		5,017
Furniture.....		4	30
Horses.....	2		1
Iron, pig.....		613	
do all other.....			520
Lard and lard oil.....		5	19
Meal, all kinds.....	148		17,224
Meats other than pork.....	32	2	3
Molasses.....			88
Oats.....	320		27,492
Oil, in barrels.....	4	2	
Oil cake.....	798		
Potatoes.....			1
Pork.....	1,220	114	21
Rye.....	1,284	634	
Salt.....		316	
Stone, for cutting.....		6,784	
do wrought.....		11	2
do not suitable for cutting.....		375	1,681
Seeds, all kinds.....	3		151
Spirits, beer, &c.....	20	8	190
Tallow.....			13
Wheat.....	70,815	7,241	39,229
Wool.....			452
Merchandise.....	193	129	1,591
Barrels, empty.....			173
Lumber, sawn.....	6,118	4,669	71,065
Masts, spars, &c.....		220	
Railway ties.....		852	
Saw logs.....			158
Staves and headings, barrel.....		4	
do do pipe.....	202	304	
do do West India.....	68	559	
Shingles.....			51
Split posts, &c.....		17	
Timber, square.....	9,302	70,579	240
Woodenware, &c.....			2
<b>Total.....</b>	<b>292,827</b>	<b>130,584</b>	<b>313,574</b>

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye passed down to Montreal, per Order in Council 18th March, 1889.

## Department of Railways and Canals.

### U.—COMPARATIVE Statement of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States orts.
1890.	Tons.	Tons.	Tons.
Ashes .....	70		
All other products, animal .....	14		
do vegetable .....	1		
Barley .....			6,519
Bricks .....			4
Coal .....		22,781	615
Corn .....	134,966	11,584	180,842
Fish .....	49		
Flour .....	3,065		9,204
Furniture .....	1	1	21
Glass, all kinds .....	1		
Horses .....	3		1
Iron, all other .....			1
Kryolite .....		1,280	1,620
Lard and lard oil .....		5	30
Meal .....	222		20,482
Meats .....			15
Oats .....	479	73	27,030
Oil, in barrels .....	6		
Oil cake .....	2		
Paint .....			3
Pease .....			14
Pork .....	221	19	88
Potatoes .....			1
Rye .....	1,120	1	
Salt .....		701	
Stone, for cutting .....		5,761	
do wrought .....		639	
Seeds, all kinds .....	2		135
Spirits, &c. ....	26		228
Tallow .....	54		
Wheat .....	75,515	5,241	31,527
White lead .....			1
Merchandise .....	142	32	1,822
Barrels, empty .....			7
Firewood, in vessels .....		1,398	
Lumber, sawn, in vessels .....	3,195	3,767	47,590
do rafts .....	384		
Staves and headings, pipe .....		187	
do West Indies .....		36	
Shingles .....			14
Square timber, in vessels .....		73,112	
do rafts .....		17,683	
Woodenware .....	1		1
	219,539	144,301	327,833
Corn .....	16,033		
Oats .....	400		
	16,433		*16,433
Total ..	235,972	144,301	311,400

\*This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence canals to Montreal.

A refund of 18 cents Welland Canal tolls was allowed on wheat, Indian corn, pease, barley, rye (and oats for export), when shipped for Montreal or some port east of that point, per Orders in Council 26th February and 5th May, 1890

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1891.	Tons.	Tons.	Tons.
Ashes.....	40		
Agricultural products.....	2		42
Barley.....			8,113
Corn.....	52,539	5,144	127,494
Coal.....		20,698	1,382
Flour.....	3,324		6,802
Fish.....			1
Furniture.....	2	2	7
Glass.....	1		1
Horses.....	2	2	3
Hay.....		21	
Iron, pig.....	371	128	
do all other.....		1,036	10
Lard and lard oil.....	100	16	10
Meal, all kinds.....	67		26,096
Meats, other than pork.....		1	2
Molasses.....		20	18
Oats.....			52,823
Oil.....			1
Pease.....	390		
Pork.....	201		73
Rags.....			60
Rye.....	64,978	969	
Seeds, all kinds.....	2		256
Salt.....		1,861	494
Stone for cutting.....		6,602	
do wrought.....		7	
Tobacco.....	1		
Tallow.....		9	8
Wheat.....	159,785	692	32,097
Staves, pipe.....		8	
Whisky and all other liquors.....	105	57	167
Wool.....			1,237
Merchandise.....	278	6	1,779
Kryolite.....		1,098	1,773
Lumber, in vessels.....	2,991	1,300	56,456
do in rafts.....	917		
Timber, square, in rafts.....	5,680	14,638	
Barrels.....			4
Corn.....	12,169		
Wheat.....	5,648		
	17,817		*17,817
<b>Total.....</b>	<b>309,593</b>	<b>54,315</b>	<b>299,392</b>

\* This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence Canals to Montreal.

A refund of 18 cents a ton Welland Canal tolls on wheat, Indian corn, pease, barley, rye and (for export) oats, originally shipped for Montreal or some port east of Montreal, per Order in Council, 25th March, 1891.

## Department of Railways and Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1892.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	17	2	
Apples.....	54		
Barley.....			6,433
Corn.....	53,689	7,637	131,222
Coal.....		14,839	651
Flour.....	2,874		11,018
Fish.....	9		
Furniture.....	1		7
Hides and skins.....	20		
Horses.....	2		
Iron, railway.....		100	
do all other.....		765	1
Meal, all kinds.....	16		31,724
Meats, other than pork.....	94		29
Oats.....			36,935
Oil.....		7	
Pease.....	524		
Potatoes.....			1
Pork.....			44
Rye.....	9,119	273	
Salt.....		865	
Seeds, all kinds.....	75		50
Steel.....			1
Stone for cutting.....		1,264	
Sugar.....			20
Wheat.....	194,281	5,373	26,950
Whisky, beer, spirits, &c.....	6	15	46
Wool.....			70
Merchandise not enumerated.....	36	13	1,304
Barrels, empty.....	1		29
Lumber, sawn, in vessels.....	1,678	150	83,403
Square timber.....	440	42,768	440
Staves and headings, pipe.....	8	89	
do do West India.....	200	76	
Shingles.....			25
<b>Total.....</b>	<b>263,144</b>	<b>74,227</b>	<b>330,403</b>
*Wheat.....	+4,341	-4,341	
<b>Total.....</b>	<b>267,485</b>	<b>69,886</b>	<b>330,403</b>

\* This quantity of wheat was taken from Kingston to Ogdensburg and stored in elevators, and subsequently transhipped to Montreal.

A refund of 18 cents a ton, Welland Canal tolls, was allowed on wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat, which passed down the whole length of the Welland and St. Lawrence Canals, to Montreal, or any port east of Montreal, and such products exported out of the country, and in such cases only.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1893.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	23		
Barley.....	600	1,110	16,751
Bricks.....		1,251	
Corn.....	278,564	5,752	156,776
Coal.....		17,944	2,123
Flour.....	5,514		6,588
Fish.....			5
Furniture.....			6
Horses.....	1	1	2
Iron, pig.....			100
do all other.....			2
Meal, all kinds.....		1,025	36,352
Meats, other than pork.....			1
Oats.....	9,761	1,090	20,313
Pork.....			52
Rye.....	3,669	1	1
Salt.....		286	
Seeds, all kinds.....			16
Wheat.....	209,212	17,602	29,117
Whiskey, beer, &c.....	1		83
Wool.....			80
Merchandise not enumerated.....	4	2	1,693
Barrels, empty.....			9
Firewood (in rafts).....		15	
Lumber, sawn, in vessels.....	667	1,981	123,665
Shingles.....			13
Square timber.....		45,605	
Staves and headings, barrel.....		12	
do pipe.....		7	
do West India.....		53	
Total.....	508,016	93,737	393,748

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1893.

The tolls were, however, reduced by Order in Council of 13th February, 1893, as follows:—"For the season of 1893, the canal toll for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals."

## Department of Railways and Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, showing the Quantity to Montreal, the Quantity to Canadian ports between Port Dalhousie and Cornwall, and the Quantity to United States ports, Oswego, Ogdensburg, &c., on the south side of Lake Ontario, for the Year 1894.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1894.	Tons.	Tons.	Tons.
Apples.....	50		
Ashes.....	19		
Barley.....	258		28,095
Bricks.....		552	
Coal.....		13,818	727
Corn.....	60,661	3,243	105,329
Dye woods and dye stuffs.....		4	2
Fish.....			5
Flour.....	16,508	41	16,880
Furniture.....	2	3	
Horses.....	1	2	4
Iron, pig.....	195	2,170	
do all other.....	1	183	
Meals.....	4		60,390
Nails.....			57
Oats.....	175	107	27,621
Oil cake.....	29		
Oil, in barrels.....		27	
Pork.....	717		56
Salt.....		133	
Spirits, beer, &c.....		3	
Sugar.....			52
Wheat.....	212,557	13,349	42,934
White lead.....	16		
Wool.....			1,484
Merchandise not enumerated.....	314		2,889
Barrels, empty.....		16	
Sawn lumber, in vessels.....	683		86,545
Square timber do.....		47,030	
Woodenware.....	6		
Total.....	292,191	80,68	373,070

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1894.

The tolls were, however, reduced by Order in Council of 16th April, 1894, as follows:—"For the season of 1894, the canal tolls for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals."

U.—STATEMENT showing the quantity of Freight passed down the Welland Canal to Canadian Ports, &c.—Continued.

## RECAPITULATION.

Articles.	Quantity passed to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the South Side of Lake Ontario,
1884.			
Barley.....	38	52	.....
Corn.....	55,552	9,552	53,707
Oats.....	872	.....	9,874
Rye.....	477	.....	.....
Wheat.....	84,822	2,549	40,975
Total Grain.....	141,761	12,153	104,556
Other Articles.....	26,954	88,272	60,987
Total.....	168,715	100,425	165,543
1885.			
Barley.....	.....	.....	228
Corn.....	44,401	9,906	63,229
Oats.....	.....	.....	882
Pease.....	11	.....	.....
Rye.....	.....	.....	.....
Wheat.....	52,157	2,003	53,235
Total Grain.....	96,569	11,909	117,574
Other Articles.....	36,399	113,853	55,759
Total.....	132,968	125,762	173,333
1886.			
Barley.....	.....	.....	.....
Corn.....	116,517	8,871	93,503
Oats.....	.....	41	4,790
Pease.....	608	.....	.....
Rye.....	.....	.....	.....
Wheat.....	86,815	969	53,258
Total Grain.....	203,940	9,881	151,551
Other Articles.....	40,574	108,246	82,703
Total.....	244,514	118,127	234,254
1887.			
Barley.....	.....	.....	1,709
Corn.....	24,609	6,898	83,431
*Oats.....	.....	.....	12,050
Pease.....	362	.....	.....
Rye.....	.....	.....	.....
Wheat.....	160,063	4,940	37,678
Total Grain.....	185,034	11,838	134,868
Other Articles.....	28,800	55,794	69,447
Total.....	213,834	67,632	204,315

\* There was no refund on oats for 1887, 1888 and 1889.



## Department of Railways and Canals.

U.—STATEMENT showing the Quantity of Freight passed down the Welland Canal to Canadian Ports, &c.—*Continued.*

### RECAPITULATION—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1888	Tons.	Tons.	Tons.
Barley.....			2
Corn.....	66,443	25,469	102,974
Oats.....			26,510
Pease.....		54	
Rye.....		632	179
Wheat.....	93,915	14,365	39,999
Total Grain.....	160,358	40,520	169,664
Other Articles.....	23,541	73,281	68,803
Total.....	183,899	113,801	238,467
1889.			
Barley.....			
Corn.....	195,350	11,200	147,045
Oats.....	320		27,492
Pease.....			
Rye.....	1,284	634	
Wheat.....	70,815	7,241	39,229
Total Grain.....	267,769	19,075	213,766
Other Articles.....	23,158	111,509	99,808
Total.....	292,927	130,584	313,574
1890.			
Barley.....			6,519
Corn.....	150,999	11,584	180,842
Oats.....	879	73	27,030
Pease.....			14
Rye.....	1,120	1	
Wheat.....	75,515	5,241	31,527
Total Grain.....	228,513	16,899	245,932
Other Articles.....	7,459	127,402	81,901
Total.....	235,972	144,301	327,833
1891.			
Barley.....			8,113
Corn.....	52,539	5,144	127,494
Oats.....			52,823
Pease.....	390		
Rye.....	64,978	969	
Wheat.....	159,785	692	32,097
Total Grain.....	277,692	6,805	220,527
Transhipped at Ogdensburg to Montreal.....	+ 17,817		- 17,817
Total.....	295,509		202,710
Other Articles.....	14,084	47,510	96,682
Grand Total.....	309,593	54,315	299,392

\* Owing to a break in the Cornwall Canal, 14,921 tons of the above quantity of grain were transhipped to Montreal via Canadian Pacific and Grand Trunk Railways, and the refund of 18 cents per ton allowed

† Of this quantity of grain, 16,433 tons were transhipped at Ogdensburg to Montreal.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Concluded.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to the United States Ports.
1892.	Tons.	Tons.	Tons.
Barley .....			6,433
Corn .....	53,689	7,637	131,222
Oats .....			36,935
Pease .....	524		
Rye .....	9,119	273	
Wheat .....	194,281	5,373	26,950
Total grain .....	257,613	13,283	201,540
Quantity taken to Ogdensburg and transhipped to Montreal .....	4,341	4,341	
Total .....	261,954	8,942	201,540
Other Articles .....	5,531	60,944	128,863
Total .....	267,485	69,886	330,403
1893.			
Barley ..	600	1,110	16,751
Corn .....	278,564	5,752	156,776
Oats .....	9,761	1,090	20,313
Pease .....			
Rye .....	3,669	1	1
Wheat .....	209,212	17,602	29,117
Total grain .....	501,806	25,555	222,958
Other Articles .....	6,210	68,182	170,790
Total .....	508,016	93,737	393,748
1894.			
Barley ..	258		28,095
Corn .....	60,661	3,243	105,329
Oats .....	175	107	27,621
Pease .....			
Rye .....			
Wheat .....	212,557	13,349	42,934
Total grain .....	273,651	16,699	203,979
Other Articles .....	18,540	63,982	169,091
Grand total .....	292,191	80,681	373,070

\* This quantity of wheat was taken from Kingston to Ogdensburg and stored in elevators and subsequently transhipped to Montreal.

## Department of Railways and Canals.

### V.—SUMMARY of Quantity of Freight passed down Welland Canal on which full Tolls were paid.

	Quantity passed down to Canadian Ports : Toronto, Hamilton, King- ston, Cornwall, &c.	Quantity passed down to United States Ports : Oswego, Ogdens- burg, &c., on south side of Lake Ontario.
1883.	Tons.	Tons.
Grain . . . . .	10,650	121,876
Other articles . . . . .	173,852	53,579
Total . . . . .	184,502	175,455
1884.		
Grain . . . . .	12,153	104,556
Other articles . . . . .	88,272	60,987
Total . . . . .	100,425	165,543
1885.		
Grain . . . . .	11,909	117,574
Other articles . . . . .	113,853	55,759
Total . . . . .	125,762	173,333
1886.		
Grain . . . . .	9,881	151,551
Other articles . . . . .	108,246	82,703
Total . . . . .	118,127	234,254
1887.		
Grain . . . . .	11,838	134,868
Other articles . . . . .	55,794	69,447
Total . . . . .	67,632	204,315
1888.		
Grain . . . . .	25,599	169,664
Other articles . . . . .	73,281	68,803
Total . . . . .	98,880	238,467
1889.		
Grain . . . . .	19,075	213,766
Other articles . . . . .	111,509	99,808
Total . . . . .	130,584	313,574
1890.		
Grain . . . . .	16,899	* 245,932
Other articles . . . . .	127,401	81,901
Total . . . . .	144,300	327,833
1891.		
Grain . . . . .	6,805	* 220,527
Other articles . . . . .	47,510	96,682
Total . . . . .	54,315	317,209

V.—SUMMARY of Quantity of Freight passed down Welland Canal on which full Tolls were paid—*Concluded.*

	Quantity passed down to Canadian Ports : Toronto, Hamilton, King- ston, Cornwall, &c.	Quantity passed down to United States Ports : Oswego, Ogdens- burg, &c., on south side of Lake Ontario.
	Tons.	Tons.
1892.		
Grain .....	8,942	201,540
Other articles .....	60,944	128,863
Total .....	69,886	330,403
1893.		
Grain .....	25,555	222,958
Other articles .....	68,182	170,790
Total .....	93,737	393,748
1894.		
Grain .....	16,699	203,979
Other articles .....	63,982	169,091
Grand Total .....	80,681	373,070

\* Of this quantity of grain 16,433 tons were transhipped to Montreal in 1890; and 17,817 tons in 1891. There was no rebate allowed of Welland Canal tolls on grain passed down to Montreal during the seasons of navigation of 1893 and 1894.

**Department of Railways and Canals.**

**CANAL REVENUE**

## CANAL

## COMPARATIVE STATEMENT for Years

	January.	February.	March.	April.	May.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Welland Canal, 1893.....	5 00			6,826 13	29,142 22
do 1894.....	84 00		10 00	11,124 51	27,769 61
Increase.....	79 00		10 00	4,298 38	
Decrease.....					1,372 61
St. Lawrence Canals, 1893.....	800 00			259 96	9,487 81
do 1894.....			0 75	1,355 23	11,962 36
Increase.....			0 75	1,095 27	2,474 55
Decrease.....	800 00				
Chambly Canal, 1893.....				8 99	3,575 95
do 1894.....				21 67	3,308 79
Increase.....				12 68	
Decrease.....					267 16
Rideau Canal, 1893.....	2 00			2 00	660 00
do 1894.....					1,161 39
Increase.....					501 39
Decrease.....	2 00			2 00	
Ottawa Canals, 1893.....				0 70	6,122 68
do 1894.....				200 58	6,202 29
Increase.....				199 88	79 61
Decrease.....					
St. Peter's Canal, 1893.....	7 01			7 40	270 42
do 1894.....	14 33		1 50	1 80	211 57
Increase.....	7 32		1 50		
Decrease.....				5 60	58 85
Trent Valley Canals, 1893.....				2 78	58 07
do 1894.....				11 53	136 82
Increase.....				8 75	78 75
Decrease.....					
Murray Canal, 1893.....				17 80	72 22
do 1894.....				35 07	62 58
Increase.....				17 27	
Decrease.....					9 64
Total, increase.....			12 25	5,624 63	1,426 04
Total, decrease.....	715 68				

## Department of Railways and Canals.

### REVENUE.

ended 31st December, 1893 and 1894.

June.	July.	August.	September.	October.	November.	December.	Total.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
28,648 81	28,622 51	27,195 41	26,217 82	28,351 53	15,134 58	3,296 76	193,440 77
22,789 22	19,813 54	21,801 35	18,645 67	21,551 61	13,887 54	2,414 14	159,891 19
5,859 59	8,808 97	5,304 06	7,572 15	6,799 92	1,247 04	882 62	33,549 58
12,732 45	14,919 33	14,160 79	14,018 44	12,188 01	7,557 91	77 27	86,201 97
13,427 32	14,728 85	12,227 60	10,043 17	11,212 49	6,415 97	490 76	81,864 50
694 87	190 48	1,933 19	3,975 27	975 52	1,141 94	413 49	4,337 47
3,531 07	3,328 03	3,592 08	3,332 95	3,212 98	2,077 10	.....	22,659 15
3,458 66	3,966 07	2,621 22	2,638 31	3,784 31	1,398 45	.....	21,197 48
72 41	638 04	970 86	694 64	571 33	678 65	.....	1,461 67
1,096 56	1,155 60	1,209 61	885 92	679 30	438 18	.....	6,129 17
1,020 94	910 90	1,238 62	882 20	563 30	522 30	.....	6,299 65
75 62	244 70	29 01	3 72	116 00	84 12	.....	170 48
5,642 55	4,490 96	4,764 76	5,302 63	5,564 04	3,423 23	.....	35,311 55
5,405 16	5,255 10	5,233 52	4,465 67	4,935 44	2,369 02	.....	34,066 78
237 39	764 14	468 76	836 96	628 60	1,054 21	.....	1,244 77
342 61	422 12	392 96	353 88	353 09	346 59	168 00	2,664 08
338 04	353 15	378 19	382 21	401 43	372 22	182 70	2,637 14
4 57	68 97	14 77	28 33	48 34	25 63	14 70	26 94
100 59	168 00	204 09	182 89	159 48	93 57	.....	969 47
175 53	241 98	209 02	218 43	105 13	13 29	.....	1,111 73
74 94	73 98	4 93	35 54	54 35	80 28	.....	142 26
115 63	102 79	102 75	110 69	61 36	47 43	5 17	635 84
120 57	141 45	120 90	86 43	102 25	86 70	0 25	756 20
4 94	38 66	18 15	24 26	40 89	39 27	4 92	120 36
5,474 83	7,798 30	7,792 03	13,043 13	7,913 83	4,053 10	459 35	40,187 33
Total for Year 1893 .....							343,012 00
Total for Year 1894 .....							307,824 67

COMPARATIVE Statement showing the quantity of Vegetable Food and Lumber passed through the Canals during the Years ended 31st December, 1893 and 1894.

	VEGETABLE FOOD.										LUMBER.	TOTAL.
	FLOUR.	WHEAT.	CORN.	BARLEY.	OATS.	RYE.	ALL OTHER.	LUMBER.				
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.			
Welland Canal, 1893.	15,235	258,392	441,092	18,599	31,283	3,671	36,981	129,295	984,548			
do 1894.	38,628	270,993	169,233	28,353	27,962	567	60,673	88,546	679,955			
Increase.	18,393	12,601	271,859	9,754	3,321	3,104	23,692	40,749	254,593			
Decrease.												
St. Lawrence Canals, 1893.	13,889	236,010	287,783	2,547	28,343	5,841	42,700	47,108	664,221			
do 1894.	23,135	219,240	65,624	525	2,094	673	30,739	42,293	384,323			
Increase	9,246	16,770	222,159	2,022	26,249	5,168	11,961	4,815	279,898			
Decrease.												
Chambly Canal, 1893.	480			98	1,141		832	72,386	74,937			
do 1894.	567			68	633		1,821	64,765	67,354			
Increase.	87			30	508		489	7,621	7,583			
Decrease.												
Rideau Canal, 1893.	369	182	17	18	289	34	150	34,487	35,556			
do 1894.	427	1,346	80	11	11	10	205	39,843	41,933			
Increase.	58	1,164	63	7	278	24	45	5,356	6,377			
Decrease.												
Ottawa Canals, 1893.	14	8	2		2,309	70	571	382,442	385,416			
do 1894.	27			2	428	22	521	401,526	402,526			
Increase	13			2	1,881	48	50	19,084	17,110			
Decrease.												





APPENDIX A.

No. (A) 1.—GENERAL STATEMENT showing the Quantity of each Article transported on the Welland Canal, and the Amount of Revenue collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.		2					11				13			2 60
Apples		143		70			50		83		193			13 58
Agricultural products, not enumerated, vegetable.	2	160		400					7		560			24 00
Agricultural products, not enumerated, animal.	22								1		22			0 55
Aggricultrual implements.	258			38,095			552		50		28,353			2,835 30
Barley											602			110 40
Bricks	50													
Bones														
Brunstone									1,225		1,225			106 37
Cement and water lime	1,225										75			3 75
Clay, lime and sand		75					13,947		189,063		14 674			2,977 33
Coal					187,794	727	63,904				169,233			16,923 30
Corn					105,329				1		1			0 02
Cattle	1													0 15
Cotton, raw									3		3			0 45
Crockery and earthenware									4		6			1 20
Dye wood and dye stuffs.									269		275			1 13
Fish					269	5					12			0 30
Flax and hemp		12									33,628			6,689 91
Flour		407			17,795				11		17			1 18
Furniture	1										6			0 30
Gypsum									2		2			0 30
Glass, all kinds.														
Hay, pressed														
Hogs														
Horses	20										36			1 57
Hides and skins, horns and hoofs		6					3		23		13			2 42
Ice									88		88			13 20
									200		200			10 00



No. (A) 1.—GENERAL STATEMENT showing the Quantity of each Article transported, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Firewood, in rafts														
Hoop-														
Hop poles		1,294				62,905		682	24	88,522	88,546	4 20	15,827 69	15,831 89
Lumber, sawn, in vessels			24	23,641										
do rafts														
Masts, spars and telegraph poles, in vessels														
Masts, spars and telegraph poles, in rafts														
do rafts			38	120					38	120	158	3 75	5 88	9 63
Saw-logs	2,169	919		560					2,169	1,479	3,648	98 80	70 37	169 17
Staves and headings, barrel do		182		200						382	382		31 05	31 05
do pipe														
do W. India														
Staves, salt barrel.														
Shingles		23												
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts														
Timber, square, in vessels		1,100	17				45,980		17	47,030	47,047	2 50	7,050 49	7,052 99
do rafts	124								124		124	3 49		3 49
Traverses														
Woodenware and wood partly manufactured		3	5						89					
Total freight paying tolls.	6,580	117,867	1,201	36,910	2,30,948	361,319	1,270	242,687	239,999	758,783	998,782	44,827 18	96,468 63	141,295 81
Articles having paid full tolls on the St. Lawrence Canada, free.—														
Agricultural products, vegetable.	4		1						5		5			



APPENDIX A—Continued.

No. A (2).—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the Welland Canal and the Amount of Tolls collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.....		2												
Apples.....			13					11		83	13		2 60	2 60
Agricultural products not enumerated, vegetable.....			5					50		7	50		12 45	22 45
Agricultural products not enumerated, animal.....	2													
Agricultural implements.....		258	1											1 05
Barley.....														
Bricks.....						28,065								
Bones.....							552							
Brunstone.....														
Cement and water lime.....														
Clay, lime and sand.....														
Coal.....					187,794	727		1,269	13,818	189,063	14,645		2,961 20	40,773 80
Corn.....					105,329			63,904		169,233	169,233		16,923 30	16,923 30
Cattle.....														
Cotton (raw).....					1					1			0 15	0 15
Crockery and earthenware.....					3					3			0 45	0 45
Dye wood and dye stuffs.....					269	5		4		3	6		0 45	1 65
Fish.....										269	5		40 35	41 35
Flax and hemp.....														
Flour.....		203				17,795		15,426		8	33,424		6,684 80	6,684 80
Furniture.....					2			5					1 00	2 20
Gypsum.....														
Glass (all kinds).....														
Hay (pressed).....														
Hogs.....														
Horses.....					2					2				
Hides and skins, horns and hoofs.....								3		3	7		1 40	1 85
					88					88			13 20	13 20

# Department of Railways and Canals

	200			2000		200	10 00	10 00	
Ice.....									10 00
Iron, railway.....								473 00	475 55
do pig.....							2 55	36 80	100 55
do all other.....	1	56							
Iron ore.....									
Kryolite chemical ore and other ore, except iron.....									
Lard and lard oil.....									
Meal, all kinds.....									
Meats, other than pork.....									
Marble.....	25								
Manilla.....	1								
Molasses.....	25								
Nails.....									
Oats.....		282							
Oil (in barrels).....									
Oil cake.....	3								
Pease.....									
Potatoes.....									
Pork.....	6								
Paint.....	10								
Pitch and tar.....	113								
Rags.....									
Rye.....	567								
Rosin.....									
Salt.....	13	133							
Stone intended for cutting.....									
do wrought.....									
do not suitable for cutting, unwrought.....									
Seeds, all kinds.....									
Sheep.....									
Soda ash.....									
Steel.....									
Sugar.....	1								
Spirits, beer, &c.....									
Tobacco (raw).....									
Tallow.....									
Tin.....									
Turpentine.....	2	105,274							
Wheat.....									
White lead.....									
Whiting.....									
Wool.....									
All other goods and merchandise not enumerated.....	167	3							
Bark.....									
Barrels, empty.....									
Boat knees.....									







APPENDIX A—Continued.

No. (A) 3.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the Welland Canal, and the Amount of Tolls collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, lot and pearl.		143						143	143		3 58	3 58
Apples.		160		400				560	560	24 00	24 00	24 00
Agricultural products not enumerated, vegetable.												
Agricultural products not enumerated, animal.		22						22	22		0 55	0 55
Agricultural implements.												
Barley							50	50	50	4 87	4 87	4 87
Bricks	50											
Bones.												
Brimstone												
Cement and water lime	1,225							1,225	1,225	106 37	106 37	106 37
Clay, lime and sand.	75							75	75	3 75	3 75	3 75
Coal.						129		129	129	16 13	16 13	16 13
Corn.												
Cattle	1							1	1	0 02	0 02	0 04
Cotton, raw												
Crockery and earthenware.												
Dye wood and dye stuffs.												
Fish		1						1	1		0 13	0 13
Flax and hemp		12						12	12		0 30	0 30
Flour		204						204	204		5 11	5 11
Furniture	1							1	1	0 40	0 18	0 58
Gypsum												
Glass, all kinds												
Hay, pressed												
Hogs												
Horses												
Hides and skins, horns and hoofs	20	6						26	26	0 40	0 17	0 57



No. (A) 3.—STATEMENT showing the Quantity of each Article of Way Freight transported, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Floats														
Firewood, in vessels	24	5,973							24	5,973	5,997	0 20	312 89	313 09
do rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels		1,294								1,294	1,294		133 57	133 57
do do rafts														
Masts, spars, and telegraph poles, in vessels														
Masts, spars, and telegraph poles, in rafts														
Railway ties, in vessels			38	120					38	120	158	3 75	5 88	9 63
do rafts									2,169	1,479	3,648	98 80	70 37	169 17
Saw-logs	2,169	919		560										
Staves and headings, barrel		182		200						382	382		31 05	31 05
do pipe														
do W. India														
Staves, salt barrel										23	23		10 35	10 35
Shingles														
Split posts and fence rails, in vessels		4								4	4		78	78
Split posts and fence rails, in rafts														
Timber, square, in vessels	124									124	124		3 49	3 49
do rafts														
Traverses														
Woodenware and wood partly manufactured														
Total freight paying tolls.	5,776	10,551	70	2,156			134		5,846	12,841	18,687	275 85	770 55	1,046 40

# Department of Railways and Canals.

Total way tolls on vessels.....	419 89	411 02	824 91
do passengers.....	128 60	119 75	248 35
Total way tolls.....	818 34	1,301 30	2,119 64

R. DEVLIN,  
*Compiler of Canal Statistics.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

APPENDIX A—Continued.

No. (A) 4.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Lawrence Canals, and the Amount of Revenue collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.	10	50							10	50	60	0 50	10 00	10 50
Apples.	19	3,082						5	19	3,087	3,086	1 65	418 91	420 56
Agricultural products not enumerated, vegetable	311	259							311	259	570	45 49	38 02	83 51
Agricultural products not enumerated, animal.	31	1,659	1				10	925	42	2,684	2,626	3 32	370 92	374 24
Agricultural implements.	94	110							94	110	204	13 19	22 00	35 19
Banley.	48	67						152	48	219	267	1 63	9 65	11 28
Bricks.	7,962	501					347		8,309	501	8,810	326 46	50 91	377 37
Bones.		83								83	83		10 43	10 43
Brimstone.	767								767		767	74 91		74 91
Buckwheat.		2,885								2,885	2,885		118 02	118 02
Cement and water lime.	6,034	84	1,903						7,937	84	8,021	1,014 40	4 74	1,019 14
Clay, lime and sand.	18,815	6,650			14		3,818		22,647	6,650	29,297	898 74	387 95	1,286 69
Coal.	10	18,332	30	1,360	20	1,360	170,884		70	190,576	190,636	2 25	26,748 52	26,750 77
Corn.	1	3,945					1,007		1	4,962	4,963	0 08	206 25	206 33
Cattle.	54	214							54	214	268	3 28	16 13	19 41
Cotton (raw)													5 00	5 76
Crockery and earthenware.	139	43	107						246	43	289	46 76	2 75	17 70
Dye wood and dye stuffs.	221	27	509				29		161	27	188	14 95	2 23	95 71
Fish							7		757	27	784	93 48		
Flax and hemp	1,540	4,258					834		1,540	5,092	6,632	85 89	454 33	540 22
Flour.	337	789							337	789	1,126	52 12	119 85	171 97
Furniture.	2,072	37							2,072	119	2,191	26 33	15 75	42 08
Gypsum.	327	100	202						529	100	629	104 77	10 85	115 62
Glass (all kinds).	240	747	240						240	747	987	12 91	47 01	59 92
Hay (pressed).		41								41	41		4 41	4 41
Hogs.		321							202	321	523	12 19	20 05	32 24
Horses.	202													
Hides and skins, horns and hoofs		19						5		21	24		2 35	2 35



No. (A) 4.—STATEMENT showing the Quantity of each Article transported on the St. Lawrence Canals, etc.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to Canadian Ports.		From United States to United States Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
	% cts.		% cts.		% cts.		% cts.		% cts.					
Floats	4,240	3,584							4,240	3,584	7,824	74 20	62 72	136 92
Firewood, in vessels.	1,140	8,217	909						2,349	8,217	10,566	89 95	155 76	245 71
do rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels.	22,517	13,978	3,745	34	837	14,849			26,262	14,849	41,111	818 38	708 45	1,526 83
do rafts	34	132				132			34	132	166	1 50	6 01	7 51
Masts, spars and telegraph poles, in vessels	38	38							38	38	76	0 95	0 95	1 90
Masts, spars and telegraph poles, in rafts	20	18,808							20	18,808	18,828	0 50	470 20	470 70
Railway ties, in vessels		727								727	727		11 26	11 26
do rafts	926	16,474							926	16,474	17,400	21 18	376 44	397 62
Saw logs														
Staves and headings, barrel.														
do pipe														
do W. India	7	5							7	5	12	1 60	1 50	3 10
Staves, salt barrel.														
Shingles														
Split posts and fence rails, in vessels	560	648							560	648	1,208	28 00	8 30	36 30
Split posts and fence rails, in rafts	575	6,961							575	6,961	7,536	14 75	169 85	184 60
Timber, square, in vessels.	20	8,796							20	8,796	8,816	0 28	22 40	22 68
do rafts														
Traverses	34	5							35	5	40	13 20	2 40	15 60
Woodenware and wood partly manufactured														
Total freight paying tolls.	109,772	168,182	13,785	222	224	1,788	19,290	175,426	143,071	345,618	488,689	10,003 90	34,207 74	44,211 64





APPENDIX A—Continued.  
 No. (A) 5.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.		42									42			8 40
Apples.		2,674									2,679			401 85
Agricultural products not enumerated, vegetable.	292													
Agricultural products not enumerated, animal.		1,466	1				925				2,391			358 65
Agricultural implements.	1	110									111			22 00
Barley.	50										3			0 45
Bricks.		227									227			34 05
Bones.		57									57			8 55
Brimstone.	2										2			0 30
Buckwheat.		611									611			61 10
Cement and water lime.	3,039										4,855			0 30
Clay, lime and sand.	24	1,230		1,826							1,230			184 50
Coal.		16,825									169,632			25,432 80
Corn.		328									328			32 80
Cattle.	2										2			0 90
Cotton (raw).		6									6			1 20
Crockery and earthenware.	75	19									19			3 80
Dye wood and dye stuffs.	4										2			0 40
Fish.	28										537			80 65
Flax and hemp.		7									7			1 05
Flour.	4	1,356									2,190			328 50
Furniture.	137	522									522			104 40
Gypsum.														
Glass (all kinds).	269	29									29			5 80
Hay (pressed).		17									17			2 55
Hogs.		26									34			3 90
Horses.	8										8			1 20
Hides and skins, horns and hoofs.		12									12			1 80



No. (A) 5.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the St. Lawrence Canals, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Firewood, in vessels . . . . .	282	6	384						666	6	672	44 40	0 40	44 80
do rafts . . . . .														
Hoops . . . . .														
Hop poles . . . . .														
Lumber, sawn, in vessels . . . . .	3,292		14				837		14	4,129	4,143	1 20	371 25	372 45
do rafts . . . . .														
Masts, spars and telegraph poles, in vessels . . . . .														
Masts, spars and telegraph poles, in rafts . . . . .														
Railway ties, in vessels . . . . .														
do rafts . . . . .														
Saw-logs . . . . .														
Staves and headings, barrel . . . . .														
do pipe . . . . .														
do W. India . . . . .														
Staves, salt barrel . . . . .														
Shingles . . . . .														
Split posts and fence rails, in vessels . . . . .														
Split posts and fence rails, in rafts . . . . .	560								560		560	28 00		28 00
Timber, square, in vessels . . . . .														
do rafts . . . . .														
Traverses . . . . .														
Woodenware and wood partly manufactured . . . . .	32	5	1						33	5	38	13 20	2 00	15 20
Total freight paying tolls.	17,579	45,477	9,412				157,110		26,991	202,587	229,578	4,065 65	29,600 42	34,266 07

# Department of Railways and Canals

*Free articles having paid full tolls on the Welland Canal:*

Apples.....	8	50	50	50	50	50	50
Ashes.....	258	11	19	19	19	19	19
Barley.....	59,146	1,515	258	258	258	258	258
Corn.....	6,652	9,851	60,661	60,661	60,661	60,661	60,661
Flour.....	2	2	16,503	16,503	16,503	16,503	16,503
Furniture.....	1	1	2	2	2	2	2
Horses.....	1	195	195	195	195	195	195
Iron, pig.....	1	1	1	1	1	1	1
do all other.....	4	4	4	4	4	4	4
Meals, all kinds.....	7	307	314	314	314	314	314
Merchandise.....	175	175	175	175	175	175	175
Oats.....	212	29	29	29	29	29	29
Oil cake.....	190,532	565	717	717	717	717	717
Pork.....	6	22,025	212,557	212,557	212,557	212,557	212,557
White lead.....	16	16	11	11	11	11	11
Lumber, sawn, in vessels.....	6	683	683	683	683	683	683
Woodenware.....	3,822	16,213	6	6	6	6	6
Coal, free, per Order in Council.....	29,970	192,302	43,201	43,201	43,201	43,201	43,201
Grand total freight.....	302,476	494,778	537,982	537,982	537,982	537,982	537,982
Total through tolls on vessels.....			5,724 02	5,674 68	5,674 68	5,674 68	5,674 68
do passengers.....			344 60	1,436 10	1,436 10	1,436 10	1,436 10
Total through free goods.....							
Total through tolls.....			10,734 27	36,711 20	36,711 20	36,711 20	36,711 20
							47,445 47

R. DEVLIN  
*Comptroller of Canal Statistics.*

DEPARTMENT OF RAILWAYS AND CANALS.  
OTTAWA, 30th September, 1895.

APPENDIX A—Continued.

No. (A) 6.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.....	10	8							10	8	18	0 50	1 60	2 10
Apples.....	19	358							19	358	377	1 65	17 06	18 71
Agricultural products not enumerated, vegetable.....	19	8							19	8	27	1 69	0 37	2 06
Agricultural products not enumerated, animal.....	31	193					10		41	193	234	3 17	12 27	15 44
Agricultural implements.....	93	64							93	64	157	12 99	9 20	22 19
Berley.....	48	274					152		48	274	322	1 63	16 86	18 49
Bricks.....	7,912	26					347		8,259	26	8,285	318 96	1 88	335 82
Bones.....	765	2,274							765	2,274	2,939	74 61	56 92	131 53
Brimstone.....	2,965	87							3,052	87	3,139	288 15	4 44	292 59
Buckwheat.....	18,791	5,420			14		3,818		22,623	5,420	28,043	895 14	203 45	1,098 59
Cement and water lime.....	10	2,507			20	1,360	17,157		60	21,024	21,084	2 25	1,315 72	1,317 97
Clay, lime and sand.....	1	3,617			10		1,007		1	4,634	4,635	10 08	173 45	173 53
Coal.....	52	208							52	208	260	2 98	15 23	18 21
Corn.....	64	24							64	24	88	10 36	1 20	11 56
Cattle.....	198	25					29		157	25	182	14 15	2 35	16 50
Cotton, raw.....	193	20					7		200	20	220	12 93	1 18	14 11
Crochery and earthenware.....														
Dye wood and dye stuffs.....														
Fish.....														
Flax and hemp.....	1,536	2,902							1,536	2,902	4,438	86 29	125 83	211 12
Flour.....	200	267							200	267	467	24 72	15 45	40 17
Furniture.....	2,072	37							2,072	37	2,109	26 33	15 75	42 08
Gypsum.....	58	71							58	71	129	10 57	5 05	15 62
Glass, all kinds.....	240	747							240	747	987	12 91	47 01	59 92
Hay, pressed.....														
Hogs.....														
Horses.....	194	295							194	295	489	10 99	16 15	27 14

# Department of Railways and Canals

	7	5		12	12	12	0 55	0 55
Hides and skins, horns and hoofs								
Ice	162			162	186	16 41	0 92	17 33
Iron, railway	439			439	453	32 48	0 53	33 01
do pig	14			14				
do all other	11,458		1,915	13,373	15,365	568 49	76 77	645 26
do ore								
Kryolite chemical ore and other ore, except iron	12			12	185	1 05	6 62	7 67
Lard and lard oil	77			77	811	4 50	30 64	35 14
Meal, all kinds	2			2	6	0 10	0 26	0 36
Meats, other than pork	1			1	1	0 19		0 19
Marble	14			14	14	2 66		2 66
Manilla	314		165	479	545	49 92	3 30	53 22
Molasses	290			291	1,466	46 75	58 75	105 50
Nails	649			1,175	1,466	16 24	31 37	50 61
Oats	1,155			1,155	1,904	35 65	5 00	40 65
Oil in barrels	250		48	298	398	0 48		0 48
Oil cake	6			6	6		420 42	426 91
Pease	259			259	17,031	6 49	2 24	4 42
Potatoes	29			29	59	2 18	0 24	20 74
Pork	6			6	214	20 50	14 30	22 10
Paint	55		1	208	342	7 80	1 80	14 96
Pitch and tar	74		142	216	252	13 15	1 30	15 80
Pitch and tar	13			110	13	14 50	5 60	5 60
Reags.	110			110	224		1 70	112 54
Rye	34			2,185	34	283 88	2 85	286 73
Rosin	3,114			3,114	75	4 21		4 21
Salt	96			96	56		0 15	43 70
Stone intended for cutting	242		629	871	874	43 55		
do wrought								
do not suitable for cutting	105			105	1,074	2 10	21 45	23 55
unwrought	4,405			4,405	4,419	165 90	0 57	166 47
Seeds, all kinds	159			159	159		12 18	12 18
Sheep	104			104	112	12 56	0 40	12 96
Soft ash	69			69	87	6 17	6 89	6 89
Steel	883			10,044	33	575 66	1 65	577 31
Sugar	265		9,161	266	289	39 87	1 15	41 02
Spirits, beer, &c	1			1	1	0 10	0 10	0 10
Tobacco, raw	23			24	24	0 95	0 85	0 85
Tallow	128		1	128	10	19 19	0 60	19 69
Tin	2			3	43	2 00	2 34	2 34
Turpentine	149		1	149	2,531	8 86	73 13	81 99
Wheat	18			18	18	2 97	2 97	2 97
White lead	49			49	52	9 22	0 15	9 37
Whiting								
Wool								
All other goods and merchandise not enumerated	2,981	135	384	4,027	5,724	411 84	132 00	543 84
Bark	149	6		155	325	12 66	10 84	23 00
Barrels, empty								

No. (A) 6.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Boat knees.....														
Floats.....	4,240	3,584							4,240	3,584	7,824	74 20	62 72	136 92
Fire wood, in vessels.....	1,158	8,211	525						1,683	8,211	9,894	45 55	155 36	200 91
do rafts.....														
Hoops.....														
Hop poles.....														
Lumber, sawn, in vessels.....	22,517	10,686	3,731	34					26,248	10,720	36,968	817 18	337 20	1,154 38
do rafts.....	34	132							34	132	166	1 50	6 01	7 51
Masts, spars and telegraph poles, in vessels.....	38	38							38	38	76	0 95	0 95	1 90
Masts, spars and telegraph poles, in rafts.....	20	18,808							20	18,808	18,828	0 50	470 20	470 70
Railway ties, in vessels.....		727								727	727		11 26	11 26
do rafts.....	926	16,474							926	16,474	17,400	21 18	376 44	397 62
Saw-logs.....														
Staves and headings, barrel pipe.....														
do W. India.....														
Staves, salt barrel.....	7	5							7	5	12	1 60	1 50	3 10
Shingles.....														
Split posts and fence rails, in vessels.....														
Split posts and fence rails, in rafts.....														
Timber, square, in vessels.....		648								648	648		8 30	8 30
do rafts.....	575	6,961							575	6,961	7,536	14 75	169 85	184 60
Traverses.....	20	8,796							20	8,796	8,816	0 28	22 40	22 68
Woodenware and wood partly manufactured.....	2								2		2	0 40		0 40
Total freight paying tolls.	92,193	122,705	4,373	222	1,788	224	18,316	19,290	116,080	143,031	259,111	5,338 55	4,607 20	9,945 57







# Department of Railways and Canals

	13	13	13	13	1 29
do all other					
do ore					
Kryolite chemical ore and other ore, except iron					
Lard and lard oil	6	6			0 52
Meat, all kinds	7	7			0 69
Meats, other than pork					
Marble					
Manilla	1	1			0 19
Molasses	1	1			0 19
Nails	1	1			0 19
Oats	426	428			28 44
Oil (in barrels)	2	2			0 29
Oil cake					
Pease	335	335			21 67
Potatoes	102	102			6 96
Pork	11	11			0 66
Paint					
Pitch and tar	14	14			2 48
Rags	22	22			2 15
Rye	58	58			8 12
Rosin					
Salt	1	1			0 10
Stone intended for cutting					
do wrought					
do not suitable for cutting, unwrought					
Seeds, all kinds	27	27			2 64
Sheep	372	372			29 96
Soda ash	4	4			0 76
Steel					
Sugar	1	1			0 19
Spirits, beer, &c	1	1			0 19
Tobacco (raw)					
Tallow					
Tin	108	108			6 83
Turpentine					
Wheat					
White lead					
Whiting					
Wool	14	307	14	321	52 48
All other goods and merchandise not enumerated.					
Bark	63	63			7 13
Barrels, empty					
Boat knees	30	54,960	30	54,990	488 41
Floats	150	33,637	150	33,787	1,230 29
Firewood, in vessels					
do rafts					
Hoops	23	23			2 07
Hop poles					
Lumber, sawn, in vessels	40	400,298	40	400,338	28,021 23
do rafts					
	188	188			3 36

No. (A) 7.—GENERAL STATEMENT showing the Quantity of each Article transported, &c., Ottawa Canals—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Masts, spars, and telegraph poles, in vessels.											3	0 25
do do rafts.											1	0 04
Railway ties, in vessels.												
do rafts.	44	4,163							44	4,163	4,207	88 42
Saw-logs												
Staves and headings, barrel.												
do pipe.												
do West India.												
Staves, salt barrel.								608			608	178 40
Shingles											1	1 10
Split posts and fence rails, in vessels.												
do do rafts.												
Timber, square, in vessels.												
do do rafts.	2,800								2,800		2,800	29 44
Traverses	240								240		240	0 60
Woodenware and wood partly manufactured.												
Total freight paying tolls.	353	458,759						51,359	353	510,118	510,471	30,861 85
Free articles for canal construction per Order in Council, 1884.												
Timber, square, in rafts.											180	
Free per Order in Council, 27th June, 1890.												
Floats											34,900	
Lumber, sawn, in vessels.											35	
do do rafts.											586	
Timber, square, in rafts.											4,120	
Saw-logs											11,678	
Traverses											40	
Freight, grand total.	353	510,298						51,359	353	561,657	562,010	

# Department of Railways and Canals.

Total tolls on vessels.....	3,025 15
do passengers.....	155 78
do Free goods.....	\$617 48
Fines.....	16 00
*Damages.....	8 00
Other receipts.....	.....
Total Revenue exclusive of Hydraulic Rents.....	34,066 78
* Amount of damages not included in above.....	\$20 00

R. DEVLIN,  
*Compiler of Canal Statistics.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

APPENDIX A—Continued.  
 No. (A) 8.—GENERAL STATEMENT showing the Quantity of each Article transported on the Chambly Canal and the amount of Revenue collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Ashes, pot and pearl.												
Apples.		868						240			1,108	106 09
Agricultural products not enumerated, vegetable.		190									190	6 35
do do animal.			101						101		101	10 10
Agricultural implements.												
Barley.		68									68	2 28
Bricks.	680							400	680	400	1,080	106 40
Bones.			232						232		232	23 20
Brimstone.								163			163	16 30
Cement and water lime.								5,629	35	5,629	5,664	644 22
Clay, lime and sand.	35							75,863	55	76,689	76,744	7,464 83
Coal.	55											
Corn.		80							22	80	102	3 93
Cattle.	22											
Cotton, raw.		4						11		4	4	0 40
Crockery and earthenware.										11	11	1 10
Dye wood and dye stuffs.												
Fish.												
Flax and hemp.									567		567	19 09
Flour.	567							2	1	22	23	1 83
Furniture.	1											
Gypsum.												
Glass, all kinds.	2,237	3,182	8,273						10,510	3,182	13,692	940 77
Hay, pressed.												
Hogs.									14	44	58	2 18
Horses.	14		10						10		10	1 00
Hides and skins, horns and hoofs.												
Ice.										970	970	97 00
Iron, railway.												
do pig.												
do do all other.								1,211		1,211	1,211	121 10
Iron ore.												



No. (A) 8.—GENERAL STATEMENT showing the Quantity of each Article transported on the Chambly Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.													
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.															
Railway ties, in vessels.....	989	19							1,756	19	1,775	\$ 140 69													
do do rafts.....			767						162		162	16 20													
Saw-logs.....																									
Staves and headings, barrel.....																									
do do pipe.....																									
do do West India.....																									
Staves, salt barrel.....	59								59		59	15 57													
Shingles.....																									
Split posts and fence rails, in vessels.....																									
do do rafts.....			104						104		104	5 20													
Timber, square, in vessels.....																									
do do rafts.....																									
Traverses.....																									
Woodenware and wood partly manufactured.....																									
Total freight paying tolls.....	9,812	7,934	156,807				101,217		166,619	109,151	275,770	18,438 71													
Coal, free per Order in Council.....	1,559		279						1,838		1,838														
Grand total freight.....	11,371	7,934	157,086				101,217		168,457	109,151	277,608														
<table border="0" style="width: 100%;"> <tr> <td>Total tolls on vessels.....</td> <td>2,621 08</td> </tr> <tr> <td>do passengers.....</td> <td>89 86</td> </tr> <tr> <td>do free goods.....</td> <td>\$188 80</td> </tr> <tr> <td>Fines.....</td> <td>5 00</td> </tr> <tr> <td>* Damages.....</td> <td>42 83</td> </tr> <tr> <td>Other receipts.....</td> <td></td> </tr> <tr> <td>Total revenue, exclusive of hydraulic rents.....</td> <td>21,197 48</td> </tr> </table>												Total tolls on vessels.....	2,621 08	do passengers.....	89 86	do free goods.....	\$188 80	Fines.....	5 00	* Damages.....	42 83	Other receipts.....		Total revenue, exclusive of hydraulic rents.....	21,197 48
Total tolls on vessels.....	2,621 08																								
do passengers.....	89 86																								
do free goods.....	\$188 80																								
Fines.....	5 00																								
* Damages.....	42 83																								
Other receipts.....																									
Total revenue, exclusive of hydraulic rents.....	21,197 48																								

\* Amount of damages not included in above, \$10.00.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

R. DEVLIN,  
Compiler of Canal Statistics.





No. (A) 9.—GENERAL STATEMENT showing the Quantity of each Article transported on the Rideau Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.	\$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
Iron ore.....													
Kryolite chemical ore and other ore, except iron.....		920									920	46 00	
Lard and lard oil.....	15	42							15	42	57	1 36	
Meal, all kinds.....		2								2	2	0 06	
Meats, other than pork.....	30	1							30	1	31	0 74	
Marble.....	2	1							2	1	3	0 36	
Manilla.....	8										8	0 70	
Molasses.....	128	2							128	2	130	11 38	
Nails.....	177	3							177	3	180	17 41	
Oats.....	5	6							5	6	11	0 28	
Oil (in barrels).....	108	100							108	100	208	19 29	
Oil cake.....	2								2		2	0 05	
Pease.....	18	1							18	1	19	0 45	
Potatoes.....	11	10							11	10	21	0 61	
Pork.....	252	14							252	14	266	6 37	
Paint.....	15								15		15	1 34	
Pitch and tar.....	32								32		32	2 81	
Rags.....	12									12	12	1 78	
Rye.....	6	4							6	4	10	0 24	
Salt.....	1,648	276							1,648	276	1,924	50 76	
Stone intended for cutting do wrought.....	1	8							1	8	9	0 23	
do not suitable for cutting, unwrought.....	3	563							3	563	566	14 36	
Seeds, all kinds.....	8	2							8	2	10	0 24	
Sheep.....													
Soda ash.....	9	3							9	3	12	1 32	
Steel.....	39	31							39	31	70	1 67	
Sugar.....	482	37							482	37	469	42 43	
Spirits, beer, &c.....	68	56							68	56	124	11 10	
Tobacco (raw).....													
Tallow.....		5								5	5	0 12	
Tin.....	23								23		23	2 06	
Turpentine.....	1								1		1	0 18	
Wheat.....	28	1,318							28	1,318	1,346	36 61	

# Department of Railways and Canals

White lead.....	23									23				2 05
Whiting.....	12									12				2 45
Wool.....		15								15				0 03
All other goods and merchandise not enumerated.	926	1								929	6			1 29 37
Bark.....	60	427			3					60				1 43
Barrels, empty.....	26	16								26				2 57
Boat knees.....	860									860				15 05
Floors.....	20,385	480								20,385	480			361 65
Firewood, in vessels do rafts.....														
Hoops.....	56	14								56	14			10 00
Hop poles.....	14,414	5,871	18,555	1,003						32,979	6,874			2,049 81
Lumber, sawn, in vessels. do rafts.....														
Masts, spars, and telegraph poles, in vessels. do rafts.....	78	222								78	222			7 16
Railway ties, in vessels do rafts.....	1,124	26								1,124	26			136 01
Saw-logs.....	147	25								147	25			3 92
Staves and headings, barrel do pipe. do West India.....														
Staves, salt barrel.....														
Shingles.....	90	202								90	202			68 12
Split posts and fence rails, in vessels do rafts.....	6	67								6	67			24 92
Timber, square, in vessels. do rafts.....	20	300								20	300			5 98
Traverses.....	628									628				7 80
Wooden ware and wood partly manufactured.....		3									3			0 29
Coal, free, per Order in Council.....	44,259	15,475	18,558	1,003						62,817	30,565			4,001 17
Grand total freight.....	1,097									1,097				
	45,356	15,475	18,558	1,003						14,087	63,914			94,479
Total tolls on vessels.....														1,707 78
do passengers.....														127 44
do free coal.....														\$ 29 27
Wharfage and storage.....														85 62
Other receipts.....														372 80
Total revenue exclusive of hydraulic rents.....														6,294 81

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

R. DEVLIN,  
Compiler of Canal Statistics.

APPENDIX A.

No. (A) 10.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Peter's Canal, and the Amount of Revenue collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Fish.....												
Flour.....	32	2,490							32	2,490	2,522	25 22
Coal.....	2,242								2,242		2,242	22 42
Lumber.....	169	28,690							169	28,690	28,859	288 59
Other agricultural products.....	5,548	721							5,548	721	6,269	62 69
do merchandise.....	3,782	7,160							3,782	7,160	10,942	109 42
	4,545	81							4,545	81	4,626	46 26
Total freight paying tolls.....	16,318	39,142							16,318	39,142	55,460	554 60
Total tolls on vessels.....												2,082 54
* Damages.....												2,637 14
Total revenue.....												3 00

\* Amount of damages not included in above..... \$ 3 00

R. DEVLIN,  
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

Department of Railways and Canals.

APPENDIX A—Continued.

No. (A) 11.—GENERAL STATEMENT showing the Quantity of each Article transported on the Trent Valley Canals, and the Amount of Revenue collected during the Season of Navigation in 1894.

Vessels.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Ashes, pot and pearl.....												\$
Apples.....												cts.
Agricultural products not enumerated, vegetable.....												
do do animal.....												
Agricultural implements.....												
Barley.....												
33 Buckwheat.....		16							16		16	0 32
35 Bricks.....												
Bones.....												
Brimstone.....												
Cement and water lime.....												
Clay, lime and sand.....												
Coal.....												
Corn.....												
Cattle.....												
Cotton (raw).....												
Crockery and earthenware.....												
Dye wood and dye stuffs.....												
Fish.....												
Flax and hemp.....												
Flour.....												
Furniture.....		6							6		6	0 18
Gypsum.....												
Glass (all kinds).....												
Hay (pressed).....												
Hogs.....												
Horses.....												
Hides and skins, horns and hoofs.....												
Ice.....												
Iron, railway.....												
do pig.....												
do all other.....												

No. (A) 11.—GENERAL STATEMENT showing the Quantity of each Article transported on the Trent Valley Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Iron ore.....												
Kryolite chemical ore and other ore, except iron.....												
Lard and lard oil.....		3								3		0 09
Meat, all kinds.....												
Meats, other than pork.....												
Marble.....												
Manilla.....												
Molasses.....												
Nails.....												
Oats.....												
Oil (in barrels).....												
Oil cake.....												
Pease.....												
Potatoes.....												
Pork.....	5								5			0 15
Paint.....												
Pitch and tar.....												
Rags.....												
Rye.....												
Rosin.....												
Salt.....	60								60			0 28
Stone intended for cutting.....												
do wrought.....												
do not suitable for cutting, unwrought.....												
Seeds, all kinds.....												
Sheep.....												
Soda ash.....												
Steel.....												
Sugar.....												
Spirits, beer, &c.....												
Tobacco (raw).....												
Tallow.....												
Tin.....												
Turpentine.....												
Wheat.....												
										1		0 03



APPENDIX A—Continued.

No. (A) 12.—GENERAL STATEMENT showing the Quantity of each Article transported on the Murray Canal and the Amount of Revenue collected during the Season of Navigation in 1894.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Ashes, pot and pearl.	193								480		480	9 09
Apples.	66	64	287						66	64	130	2 50
Agricultural products, not enumerated, vegetable do do animal.	3	1	1						3	1	4	0 02
Barley.	213	324		120					213	444	657	4 24
Buckwheat.	327	441							327	441	768	12 45
Bricks.		44								44	44	14 43
Bones.	1								1		1	0 83
Brimstone.												0 02
Cement and water lime.	495		57						552		552	10 39
Clay, lime and sand.												
Coal.												
Corn.	3						130		3	130	130	2 44
Cattle.	2								2		2	0 05
Cotton, raw.												0 04
Crockery and earthenware.	39	2	35						74	2	76	1 91
Dye wood and dye stuffs.	4								4		4	0 10
Fish.												
Flax and hemp.	3	225							3	225	228	4 30
Flour.	143	45	5				9		148	54	202	5 23
Furniture.												
Gypsum.												
Glass, all kinds.	60	18	1				1		61	19	80	2 02
Hay, pressed.												
Hogs.												
Horses.	17	6	2				1		19	7	26	0 52
Hides and skins, horns and hoofs.		49	250						250	49	299	0 95
Ice.												
Iron, railway.	8									8	8	6 25



# Department of Railways and Canals.

do pig.....	103	90	193	198	3 62
do all other.....	273	13	286	288	5 46
Kryolite chemical ore and other ore, except iron.....					
Lard and lard oil.....	4		4	4	0 08
Lard, all kinds.....	6		9	9	0 17
Meats, other than pork.....	28		28	28	0 53
Marble.....	2		2	2	0 05
Manilla.....	2		2	2	0 05
Molasses.....	6		6	6	0 20
Nails.....	294		294	306	7 68
Oats.....	12		12	12	0 12
Oil, in barrels.....	6		6	6	6 17
Oil cake.....	80		80	246	
Pease.....	70	57	127	1,433	23 32
Potatoes.....	2		2	1,560	0 16
Pork.....	5		6	8	0 08
Paint.....	4		4	4	0 08
Paint,.....	14		14	38	0 86
Fitch and tar.....	8		8	10	0 26
Rags.....	2		2	95	2 88
Rye.....	81		81	205	3 86
Rosin.....	205		205		
Salt.....	100		100	209	3 95
Stone intended for cutting.....		109			
do wrought.....					
do not suitable for cutting, unwrought.....	1,652		1,652	1,652	16 62
Seeds, all kinds.....	14		14	47	0 90
Sheep.....					
Soda ash.....	20		20	20	0 51
Steel.....	49		49	49	0 92
Sugar.....	1,153		1,161	1,181	29 71
Spirits, beer, &c.....	11		11	221	5 54
Tobacco, raw.....	210		210		
Tallow.....					
Tin.....	105		106	105	2 64
Turpentine.....	2		4	6	0 15
Wheat.....	87		87	698	13 12
White lead.....	10		10	14	0 35
Whiting.....	15		15	15	0 88
Wool.....	13		13	13	0 24
All other goods and merchandise not enumerated.....	1,468	2	1,493	2,426	61 65
Bark.....					
Barrels, empty.....					
Boat knees.....					
Floats.....					
Firewood, in vessels.....					
do rafts.....	480		480	795	6 63
Hoops.....					
Hop poles.....					

No. (A) 12.—GENERAL STATEMENT showing the Quantity of each Article transported on the Murray Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Lumber, sawn, in vessels	254	51							319	51	370	\$ cts. 4 56
do rafts			65									
Masts, spars and telegraph poles, in vessels												
do do rafts												
Railway ties, in vessels												
do rafts												
Saw-legs												
Staves and headings, barrel												
do pipe												
do West India			54						55		55	5 89
Staves, salt barrel												
Shingles												
Split posts and fence rails, in vessels												
do do rafts												
Timber, square, in vessels												
do do rafts									7,140	2	7,140	89 25
Traverses												
Woodenware and wood partly manufactured												
Total freight paying tolls	8,086	12,098	1,327	120				257	9,413	12,475	21,888	381 99
Total tolls on vessels												286 71
do passengers												137 50
Total revenue exclusive of hydraulic rents												756 20

R. DEVLIN,  
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

**Department of Railways and Canals.**

**STATEMENT OF TRAFFIC**

## APPENDIX A—

## No. (A) 13.—STATEMENT of Traffic on the undermentioned Canals, and

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Class No. 1.</i>		\$ cts.		\$ cts.		\$ cts.
Canadian vessels, steam.....	431,080	3,962 71	638,966	4,027 81	60,502	196 43
United States vessels, steam.....	132,955	2,780 79	27,188	192 43	1,270	16 16
Canadian vessels, sail.....	554,651	8,308 87	920,558	10,819 59	36,005	513 20
United States vessels, sail.....	134,259	2,965 93	110,525	1,044 51	151,579	1,895 29
Total, class No. 1.....	1,252,945	18,018 30	1,697,237	16,084 34	249,356	2,621 08
<i>Class No. 2.</i>	No.		No.		No.	
Passengers.....	30,224	380 08	57,736	2,709 45	5,612	89 86
<i>Class No. 3.</i>	Tons.		Tons.		Tons.	
Bricks.....	602	115 27	8,810	377 37	1,080	106 40
Brimstone.....			767	74 91		
Cement and water lime.....	1,225	106 37	8,021	1,019 14	163	16 30
Clay, lime and sand.....	75	3 75	29,297	1,286 69	5,664	644 22
Fish.....	275	41 48	764	95 71		
Gypsum.....			2,191	42 08		
Iron, railway.....			214	21 53	970	97 00
do pig.....	2,382	475 55	941	106 21		
do all other.....	690	102 19	17,786	1,008 41	1,211	121 10
Steel.....			1,446	210 74		
Salt.....	159	29 20	4,719	516 23	666	52 22
Stone, for cutting.....			96	4 21		
Apples.....	276	26 03	3,056	420 56	1,108	106 09
Barley.....	28,353	2,835 30	267	11 28	68	2 28
Buckwheat.....			2,885	118 02		
Corn.....	169,233	16,923 30	4,963	206 33		
Cotton, raw.....	1	0 15				
Flax and hemp.....	12	0 30				
Flour.....	33,628	6,689 91	6,632	540 22	567	19 09
Hay, pressed.....			987	59 92	13,692	940 77
Meals, all kinds.....	60,395	12,078 95	1,013	65 44		
Oil cake.....	29	5 80	6	0 48		
Oats.....	27,962	2,800 71	1,917	62 11	633	21 15
Pease.....			26,514	1,375 21	196	6 56
Potatoes.....	2	0 30	102	10 87	17	0 74
Rye.....	567	85 05	673	50 50		
Seeds, all kinds.....			4,526	182 52	2	0 07
Tobacco, raw.....	1	0 15	3	0 40		
Wheat.....	270,993	27,005 47	6,683	497 09		
All other agricultural products, vegetable	567	25 05	570	83 51	190	6 35
Bones.....			83	10 43	232	23 20
Cattle.....	2	0 04	268	19 41	102	3 93
Hogs.....			41	4 41		
Hides and skins, horns and hoofs.....	88	13 20	24	2 35	10	1 00
Horses.....	36	2 42	523	32 24	58	2 18
Lard and lard oil.....			334	30 02		
Meats, other than pork.....			25	3 21		
Pork.....	779	155 50	265	28 39	1	0 04
Sheep.....			171	13 98	124	4 39
Tallow.....	259	38 85	24	0 95		
Wool.....	1,489	297 55				
All other agricultural products, animal.....			2,626	374 24	101	10 10
Total, class No. 3.....	600,080	69,857 84	140,233	8,967 32	26,855	2,185 18

# Department of Railways and Canals.

*Continued.*

the Amount of Tolls collected during the Season of Navigation in 1894.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
180,624	196 16	136,420	564 30	107,414	750 56	31,653	633 06	44,536	334 39
393	2 25	90	0 60	62,424	776 98	63,311	1,266 22		
7,968	35 05	155,416	2,147 42	637	16 25	4,941	98 82	39,072	151 25
159	3 25	13,345	312 83	8,768	163 99	4,222	84 44		
189,144	236 71	305,271	3,025 15	179,243	1,707 78	104,127	2,082 54	83,608	485 64
No.		No.		No.		No.		No.	
11,471	137 50	13,914	155 78	5,544	127 44			17,623	146 39
Tons.		Tons.		Tons.		Tons.		Tons.	
44	0 83			173	7 56			16	32
552	10 39	4	0 22	626	15 10				
		6,011	171 46	107	2 59				
				121	2 94	2,522	25 22		
8	0 15	12	0 70						
193	3 62			266	8 02				
288	5 46	13	1 29	863	24 16				
49	0 92			70	1 67				
209	3 95			1,924	50 76				
		1	0 10	9	0 23			60	28
480	9 09	77	4 64	163	3 96				
657	12 45	2	0 12	11	0 29				
768	14 43	7	0 69						
3	0 05			80	3 17				
				2	0 05				
228	4 30	27	1 62	427	10 96	2,242	22 42		
		3,311	330 05	100	2 81				
9	0 17	7	0 69	2	0 06				
				2	0 05				
6	0 12	428	28 44	11	0 28				
1,560	29 32	335	21 67	19	0 45				
8	0 16	102	6 96	21	0 61				
205	3 86	22	2 15	10	0 24				
47	0 90	27	2 64	10	0 24				
698	13 12			1,346	36 61				
130	2 50	14	1 24	13	0 34				
1	0 02	9	0 74	8	0 29				
2	0 04	432	31 96	2	0 06				
		43	3 18					17	0 41
49	0 95	6	0 60	3	0 10				
26	0 52	124	5 70	7	0 19				
4	0 08	6	0 52	57	1 36				
28	0 53			31	0 74				
4	0 08	11	0 66	266	6 37			5	0 15
		372	29 96					8	0 18
		108	6 83	5	0 12				
13	0 24			1	0 03				
1	0 02	1,250	115 69	185	6 52				
6,270	118 27	12,761	770 52	6,941	188 93	4,764	47 64	106	1 34

## No. (A) 13.—STATEMENT of Traffic on the undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Class No. 4.</i>		\$ cts.		\$ cts.		\$ cts.
Ashes, pot and pearl	13	2 60	60	10 50		
Agricultural implements	23	0 70	204	35 19		
Crockery and earthenware	3	0 45	289	51 76	4	0 40
Dye woods and dye stuffs	9	1 65	188	17 70	11	1 10
Furniture	17	2 78	1,126	171 97	23	1 83
Glass, all kinds	2	0 30	629	115 62		
Marble	847	127 05	1	0 19		
Manilla	89	13 35	51	10 06		
Molasses	82	12 30	688	81 82	172	17 07
Nails	127	17 33	2,863	384 90		
Oil, in barrels	128	19 64	817	124 45	37	3 60
Paint	13	1 56	510	55 70		
Pitch and tar	113	16 95	519	68 35	196	19 60
Rags			336	58 40		
Rosin			2,234	115 54	2,407	230 42
Soda ash	35	5 55	489	88 36	70	4 67
Sugar	1,615	203 92	16,371	1,836 11	11,949	1,194 90
Stone, wrought			874	43 70		
Tin			734	138 89		
Turpentine	1	0 15	46	2 94	1	0 10
White lead			57	10 77		
Whiting	32	0 72	247	48 37		
Whisky and all other spirits	45	6 75	791	141 42		
Merchandise, not enumerated	44,535	6,650 02	11,758	1,750 64	4,944	435 63
<b>Total, class No. 4</b>	<b>47,728</b>	<b>7,083 77</b>	<b>41,882</b>	<b>5,363 35</b>	<b>19,814</b>	<b>1,909 32</b>
<i>Class No. 5.</i>						
Bark						
Barrels, empty	39	6 50	449	45 92	29	97
Boat knees						
Floats			7,824	136 92		
Firewood, in vessels	5,997	313 09	10,566	245 71	84,640	2,806 89
do rafts						
Lumber, sawn, in vessels	88,546	15,831 89	41,111	1,526 83	64,395	3,801 37
do rafts			166	7 51	370	22 20
Hoops						
Railway ties, in vessels	158	9 63	727	11 26	1,775	140 69
do rafts						
Masts, spars and telegraph poles, in vessels			76	1 90	227	10 69
Masts, spars and telegraph poles, in rafts						
Square, timber, in vessels	47,047	7,052 99	18,828	470 70	162	16 20
do rafts	124	3 49	7,536	184 60	104	5 20
Woodenware and wood partly manufactured	100	40 00	40	15 60		
Shingles	23	10 35	12	3 10	59	15 57
Split posts and fence rails in vessels	4	78				
do do rafts						
Saw-logs	3,648	169 17	17,400	397 62		
Staves and headings, barrel	382	31 05				
do do pipe						
do do West India						
do do salt barrel						
Traverses			8,816	22 68		
Hop poles						
<b>Total, class No. 5</b>	<b>146,068</b>	<b>23,468 94</b>	<b>114,759</b>	<b>3,106 65</b>	<b>151,761</b>	<b>6,819 78</b>

## Department of Railways and Canals.

Canals, and the Amount of Tolls collected, &c.—Continued.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
.....		6	1 14	5	0 88				
169	4 24	8	1 43	69	7 75	10,942	109 42		
76	1 91	2	0 38	89	8 15				
4	0 10								
202	5 23	16	1 99	32	2 87			6	18
80	2 02	4	0 76	26	2 32				
2	0 05			3	0 36				
2	0 05			8	0 70				
6	0 20	1	0 19	130	11 38				
306	7 68	1	0 19	180	17 41				
246	6 17	2	0 29	208	19 29				
38	0 96			15	1 34				
10	0 26			32	2 81				
95	2 38	14	2 48	12	1 78				
		58	8 12	1	0 09				
20	0 51	4	0 76	12	1 32				
1,181	29 71	1	0 19	469	42 43				
.....									
105	2 64			23	2 06				
6	0 15			1	0 18				
14	0 35			23	2 05				
15	0 38			27	2 45				
221	5 54	1	0 19	124	11 10			1	0 03
2,426	61 55	321	52 48	1,362	129 37	4,626	46 26	77	2 31
5,224	132 08	439	70 59	2,851	268 09	15,568	155 68	84	2 52
.....									
				60	1 43			78	2 95
		63	7 13	42	2 57				
		54,990	458 41	860	15 05			6,222	18 05
795	6 63	33,787	1,230 29	20,865	351 65			21,255	224 33
								75	0 75
370	4 56	400,338	28,021 23	39,843	2,049 81	6,269	62 69	1,870	48 41
		188	3 36						
		23	2 07						
				1,150	136 01			116	2 76
								95	3 75
		3	0 25	300	7 16				
		1	0 04					476	7 88
7,140	89 25	2,800	29 44	320	5 98			500	7 50
2	10			3	29			2	06
55	5 89	630	178 40	292	68 12			124	10 43
		1	1 10	73	24 92			28	1 25
		4,207	88 42	172	3 92			3,872	33 93
								25	20
		240	60	628	7 80			1,340	11 00
				70	10 00				
8,362	106 43	497,271	30,020 74	64,678	2,684 71	6,269	62 69	36,078	373 25

## No. (A) 13.—STATEMENT of Traffic on the undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Special Class.</i>		\$ cts.		\$ cts.		\$ cts.
Coal.....	203,737	40,789 93	190,636	26,750 77	76,744	7,464 83
Kryolite or chemical ore.....						
Iron ore.....						
Stone, unwrought, not suitable for cutting.....	969	85 33	1,179	23 55	596	59 60
Ice.....	200	10 00				
Total, Special Class.....	204,906	40,885 26	191,815	26,774 32	77,340	7,524 43
Total freight and tolls.....	998,782	159,694 19	488,689	63,005 43	275,770	21,149 65
Timber and other wood, free.....			1,682	132 90		
Wheat, corn, flour, iron, salt, coal, etc., etc., free.....	9,439	1,455 85	396,407	37,502 23	1,838	183 80
Grand Totals, passengers and tonnage of vessels not included..	1,008,221	161,150 04	886,778	100,640 56	277,608	21,333 45

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.



# Department of Railways and Canals.

Canals, and the Amount of Tolls collected, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
130	2 44			17,426	799 08	28,859	288 59		
				920	46 00			3	0 09
1,652	16 52			566	14 36				
250	6 25								
2,032	25 21			18,912	859 44	28,859	288 59	3	0 09
21,888	756 20	510,471	34,042 78	93,382	5,836 39	55,460	2,637 14	36,271	1,009 23
		51,539	617 48						
				1,097	29 27				
21,888	756 20	562,010	34,660 26	94,479	5,865 66	55,460	2,637 14	36,271	1,009 23

R. DEVLIN,  
*Compiler of Canal Statistics.*

## APPENDIX

No. (A) 14.—SUMMARY STATEMENT of Traffic on the undermentioned Canals during of each description of property passed through

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
		\$ cts.		\$ cts.		cts.
Vessels of all kinds .....	1,252,945	18,018 30	1,697,237	16,084 34	9,356	2,621 08
Passengers .....	No. 30,224	380 08	No. 57,736	2,709 45	No. 5,612	89 86
<i>Forest, Produce of Wood.</i>						
	Tons.		Tons.		Tons.	
Bark .....						
Boat knees .....						
Floats .....			7,824	136 92		
do .....	Free					
Firewood .....	5,997	313 09	10,566	245 71	84,640	2,806 89
Hoops and hop poles .....						
Lumber, sawed .....	88,546	15,831 89	41,277	1,534 34	64,765	3,823 57
do .....	Free		1,016			
Masts, spars, &c. ....			18,904	472 60	389	26 89
Railway ties .....	158	9 63	727	11 26	1,775	140 69
Saw logs .....	3,648	169 17	17,400	397 62		
do .....	Free					
Staves, all kinds .....	382	31 05				
Shingles .....	23	10 35	12	3 10	59	15 57
Split posts and rails .....	4	0 78				
Timber, square .....	47,171	7,056 48	8,744	220 90	104	5 20
do .....	Free		660			
Traverses .....			8,816	22 68		
do .....	Free					
<b>Total .....</b>	<b>145,929</b>	<b>23,422 44</b>	<b>115,946</b>	<b>3,045 13</b>	<b>151,732</b>	<b>6,818 81</b>
<i>Farm Stock.</i>						
Cattle .....	2	0 04	268	19 41	102	3 93
Hogs .....			41	4 41		
Horses .....	36	2 42	523	32 24	58	2 18
do .....	Free		1			
Sheep .....			171	13 98	124	4 39
do .....	Free					
<b>Total .....</b>	<b>39</b>	<b>2 46</b>	<b>1,004</b>	<b>70 04</b>	<b>284</b>	<b>10 50</b>
<i>Produce of Animals.</i>						
Bones .....			83	10 43	232	23 20
Horns and hoofs, hides and skins, raw .....	88	13 20	24	2 35	10	1 00
Lard and lard oil .....			354	30 02		
Meats other than pork .....			25	3 21		
do do .....	Free					
Pork .....	779	155 50	265	28 39	1	0 04
do .....	Free		717			
Tallow .....	259	38 85	24	0 95		
Wool .....	1,489	297 55				
Agricultural products not enumerated, animal .....			2,626	374 24	101	10 10
<b>Total .....</b>	<b>2,622</b>	<b>505 10</b>	<b>4,098</b>	<b>449 59</b>	<b>344</b>	<b>34 34</b>

# Department of Railways and Canals.

A—Continued.

the Season of Navigation ended 31st December, 1894, showing the Total Quantity and the Amount of Tolls collected thereon.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
189,144	236 71	305,271	3,025 15	179,243	1,707 78	104,127	2,082 54	83,608	485
No. 11,471	137 50	No. 13,914	155 78	No. 5,544	127 44	No.		No. 17,623	146 39
Tons.		Tons.		Tons.		Tons.		Tons.	
				60	1 43			78	2 95
		54,990	458 41	860	15 05			6,222	18 05
		34,900							
795	6 63	33,787	1,230 29	20,865	351 65			21,330	225 08
		23	2 07	70	10 00				
370	4 56	400,526	28,024 59	39,843	2,049 81	6,269	62 69	1,870	48 41
		621							
		4	0 29	300	7 16			476	7 88
				1,150	136 01			211	6 51
		4,207	88 42	172	3 92			3,872	33 93
		11,678						25	0 20
55	5 89	630	178 40	292	68 12			124	10 43
		1	1 10	73	24 92			28	1 25
7,140	89 25	2,800	29 44	320	5 98			500	7 50
		4,300							
		240	0 60	628	7 80			1,340	11 00
		40							
8,360	106 33	548,747	30,013 61	64,633	2,681 85	6,269	62 69	36,076	373 19
2	0 04	432	31 96	2	0 06				
		43	3 18					17	0 41
26	0 52	124	5 70	7	0 19				
		372	29 96					8	0 18
28	0 56	971	70 80	9	0 25			25	0 59
1	0 02	9	0 74	8	0 29				
49	0 95	6	0 60	3	0 10				
4	0 08	6	0 52	57	1 36				
28	0 53			31	0 74				
4	0 08	11	0 66	266	6 37			5	0 15
		108	6 83	5	0 12				
13	0 24			1	0 03				
1	0 02	1,250	115 69	185	6 52				
100	1 92	1,390	125 04	556	15 53			5	0 15

## APPENDIX

## No. (A) 14.—SUMMARY STATEMENT of Traffic on the undermentioned Canals

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Agricultural Products.</i>						
Agricultural products not enumerated, vegetable.		\$ cts.		\$ cts.		\$ cts.
do do Free	567	25 05	570	83 51	190	6 35
Apples do Free	276	26 03	3,056	420 56	1,108	106 09
Barley do Free	28,353	2,835 30	267	11 28	68	2 28
Buckwheat			2,885	118 02		
Cotton, raw	1	0 15				
Corn do Free	169,233	16,923 30	4,963	206 33		
Flax and hemp	12	0 30				
Flour do Free	33,628	6,689 91	6,632	540 22	567	19 09
Hay, pressed			16,503			
Meals, all kinds do Free	60,395	12,078 95	1,013	65 44	13,692	940 77
Manilla do Free	15		4			
do do Free	89	13 35	51	10 06		
Oats do Free	27,962	2,800 71	1,917	62 11	633	21 15
Pease			175			
Potatoes	2	0 30	26,514	1,375 21	196	6 56
Rye	567	85 05	102	10 87	17	0 74
Seeds, flax, clover and grass do Free	33		673	50 50		
Tobacco, raw	1	0 15	4,526	182 52	2	0 07
Wheat do Free	270,993	27,005 47	3	0 40		
			6,683	497 09		
			312,557			
Total	592,143	68,484 02	351,050	3,694 04	16,473	1,103 10
<i>Manufactures.</i>						
Ashes, pot and pearl do Free	13	2 60	60	10 50		
Agricultural implements	23	0 70	19			
Barrels, empty	39	6 50	204	35 19		
Bricks do Free	602	115 27	449	45 92	29	0 97
Cement and water lime do do Free	1		8,810	377 37	1,080	106 40
do do Free	1,225	106 37	8,021	1,019 14	163	16 30
Crockery and earthenware do do Free	2,281					
Furniture do Free	3	0 45	289	51 76	4	0 40
Glass, all kinds do Free	107					
do do Free	17	2 78	1,126	171 97	23	1 83
Iron, railway	2	0 30	2			
Iron, pig do Free	175		629	115 62		
Iron, all other do Free	2,382	475 55	214	21 53	970	97 00
Molasses do Free	20		941	106 21		
Nails do Free	690	102 19	195			
Oil do Free	114		17,786	1,008 41	1,211	121 10
	82	12 30	1			
	42		688	81 82	172	17 07
	127	17 33	2,863	384 90		
	500					
	128	19 64	817	124 45	37	3 60
	8					



## No. (A) 14.—SUMMARY STATEMENT of Traffic on the undermentioned Canals

Articles.	Welland Canal.		St. Lawrence Canals.		Chamblly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Manufactures—Concluded.</i>						
		\$ cts.		\$ cts.		\$ cts.
Oil cake .....	29	580	6	0 48		
do .....	Free		29			
Paint .....	13	1 56	510	55 70		
do .....	Free					
Pitch and tar .....	8					
do .....	Free					
Spirits, whiskey, &c. ....	113	16 95	519	68 35	196	19 60
do .....	152					
Rosin .....			2,234	115 54	2,407	230 42
Soda ash .....	35	5 55	489	88 36	70	4 67
do .....	Free					
Spirits, whiskey, &c. ....	94					
do .....	Free					
Steel .....	44	6 75	791	141 42		
do .....	Free					
Sugar .....	53		1,446	210 74		
do .....	Free					
Sugar .....	248					
do .....	Free					
Tin .....	1,615	203 92	16,371	1,836 11	11,949	1,194 90
do .....	Free					
Tin .....	2,724		734	138 89		
do .....	Free					
Turpentine .....	327					
do .....	Free					
White lead .....	1	0 15	46	2 94	1	0 10
do .....	Free					
Whiting .....	2		57	10 77		
do .....	Free					
Whiting .....	32	0 72	247	48 37		
do .....	Free					
Woodenware .....	1					
do .....	Free					
do .....	100	40 00	40	15 60		
do .....	Free					
Total .....	14,172	1,143 38	66,655	6,288 06	18,312	1,814 36
<i>Merchandise.</i>						
Brimstone, crude .....			767	74 91		
do .....	Free					
Clay, lime and sand .....	2					
do .....	Free					
Coal .....	75	3 75	29,297	1,286 69	5,664	644 22
do .....	Free					
Coal .....	253					
do .....	Free					
Dye woods and dye stuffs .....	203,737	40,789 93	190,636	26,750 77	76,744	7,464 83
do .....	Free					
Fish .....	9	1 65	104,240	1,838	11	1 10
do .....	Free					
Gypsum .....	275	41 48	764	95 71		
do .....	Free					
Ores, all kinds .....	512		2,191	42 08		
do .....	Free					
Marble .....			180			
do .....	Free					
Rags .....	847	127 05	1	0 19		
do .....	Free					
Salt .....			336	58 40		
do .....	Free					
Stone, all kinds .....	159	29 20	4,719	516 23	666	52 22
do .....	Free					
do .....	843					
do .....	Free					
Stone, all kinds .....	969	85 33	2,149	71 46	596	59 60
do .....	Free					
do .....	310					
do .....	Free					
All other goods and merchandise, not enumerated .....	44,735	6,660 02	11,758	1,750 64	4,944	435 63
do .....	Free					
do .....	900		489			
do .....	Free					
Total .....	253,316	47,738 41	348,025	30,664 78	90,463	8,657 60
Grand totals, passengers and tonnage of vessels not included .....	1,008,221	159,694 19	886,778	63,005 43	277,608	21,149 65

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

# Department of Railways and Canals.

during the Season of Navigation ended 31st December, 1894, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
				2	0 05				
38	0 96			15	1 34				
10	0 26			32	2 81				
		58	8 12	1	0 09				
20	0 51	4	0 76	12	1 32				
221	5 54	1	0 19	124	11 10			1	0 03
49	0 92			70	1 67				
1,181	29 71	1	0 19	469	42 43				
105	2 64			23	2 06				
6	0 15			1	0 18				
14	0 35			23	2 05				
15	0 38			27	2 45				
2	0 10			3	0 29			2	0 06
3,831	89 42	196	24 97	3,511	195 30			25	0 59
		6,011	171 46	107	2 59				
130	2 44			17,426	799 08	28,859	288 59		
4	0 10			1,097					
				121	2 94	2,522	25 22		
								3	0 09
				920	46 00				
2	0 05			3	0 36				
95	2 38	14	2 48	12	1 78				
209	3 95			1,924	50 76				
1,652	16 52	1	0 10	575	14 59			60	0 28
2,676	67 80	321	52 48	1,362	129 37	4,626	46 26	77	2 31
4,768	93 24	6,347	226 52	23,547	1,047 47	36,007	360 07	140	2 68
21,888	756 20	562,010	34,042 78	94,479	5,836 39	55,460	2,637 14	36,271	1,009 23

R. DEVLIN,  
*Compiler of Canal Statistics.*





# Department of Railways and Canals.

<b>OTTAWA CANALS.</b>												
Ottawa .....	32 62	3,417 61	3,239 43	2,595 17	3,110 27	2,657 78	2,919 03	1,173 08	.....	.....	19,144 99	
Carillon .....	.....	8 69	14 60	108 00	6 21	9 82	7 37	11 08	.....	.....	165 77	
Grenville .....	149 23	2,611 21	1,976 24	2,299 26	1,859 42	1,622 02	1,895 44	1,111 32	.....	.....	13,524 14	
St. Anne's .....	18 73	160 78	166 89	250 67	247 62	176 05	113 60	73 54	.....	.....	1,207 88	
Total Ottawa Canals.....	200 58	6,198 29	5,397 16	5,253 10	5,223 52	4,465 67	4,935 44	2,369 02	.....	.....	34,042 78	
<b>RIDEAU CANAL.</b>												
Kingston Mills .....	.....	269 27	275 31	239 50	350 91	243 85	193 00	43 19	.....	.....	1,615 03	
Ottawa .....	.....	599 23	556 49	494 33	739 34	533 45	269 08	403 98	.....	.....	3,395 88	
Smith's Falls .....	.....	74 56	85 70	110 81	117 95	87 40	92 32	56 71	.....	.....	625 48	
Total Rideau Canal.....	.....	943 09	917 50	844 64	1,208 20	864 70	554 40	503 86	.....	.....	5,836 39	
<b>St. Peter's CANAL.</b>												
St. Peter's .....	14 33	211 57	338 04	353 15	378 19	382 21	401 43	372 22	182 70	.....	2,637 14	
<b>TRENT VALLEY CANALS.</b>												
Bobcaygeon .....	3 85	52 65	106 23	99 47	107 19	84 60	44 45	.....	.....	.....	498 44	
Buckhorn .....	.....	12 01	4 36	14 36	17 51	63 85	2 80	.....	.....	.....	114 93	
Burleigh .....	59	7 64	13 02	6 70	14 00	10 05	27 44	0 25	.....	.....	79 60	
Fenelon Falls .....	.....	5 00	1 00	6 75	7 05	9 00	3 10	0 75	.....	.....	32 65	
Hastings .....	.....	.....	1 77	3 02	6 95	3 90	3 25	2 40	.....	.....	21 29	
Peterborough .....	7 18	13 48	44 90	59 68	56 32	47 03	23 84	9 89	.....	.....	262 32	
Total Trent Valley Canals.....	11 53	90 82	171 28	189 98	209 02	218 43	104 88	13 29	.....	.....	1,009 23	
<b>MURRAY CANAL.</b>												
Brighton .....	35 07	62 58	120 57	141 45	120 90	86 43	102 25	86 70	0 25	.....	756 20	
Grand Total.....	14 33	12,631 08	43,381 04	41,673 40	40,719 57	34,481 90	39,832 64	23,891 27	3,056 80	.....	288,131 01	

R. DEVILIN,  
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

APPENDIX A—Continued.

No. (A) 16.—GENERAL STATEMENT showing the Number, Tonnage and Nationality of Vessels passed through all the Canals during the Season of Navigation ended the 31st December, 1894, and the amount of Tolls collected thereon.

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
<b>WELLAND CANAL.</b>														
Canadian vessels, steam.....	1,068	186,858	156,848	7,219	1,404	5,669	52,364	214,649	216,431	431,080	3,962	71		
do sail.....	405	21,362	27,589	2,421	654	447	37,564	65,381	67,374	132,955	2,780	79		
Total Canadian.....	1,473	158,220	184,437	9,640	2,058	6,116	89,928	280,030	284,005	564,035	6,743	50		
United States vessels, steam.....	617	.....	2	3,374	247,522	306	51,724	274,019	280,632	554,651	8,308	87		
do sail.....	322	1,130	862	5,381	48,947	4,430	21,284	68,433	65,826	134,259	2,965	93		
Total United States.....	939	1,130	864	8,755	296,469	4,736	73,008	342,452	346,458	688,910	11,274	80		
Grand Total, Welland Canal.....	2,412	159,350	185,301	18,395	298,527	263,831	10,852	622,482	630,463	1,252,945	18,018	30		
<b>ST. LAWRENCE CANALS.</b>														
Canadian vessels, steam.....	3,018	321,791	279,031	23,240	119	.....	14,785	345,150	293,816	638,966	4,027	81		
do sail.....	4,317	470,387	306,058	57,141	.....	.....	86,972	527,528	363,030	920,538	10,819	59		
Total Canadian.....	7,335	792,178	585,089	80,381	119	.....	101,757	872,678	656,846	1,559,504	14,847	40		
United States vessels, steam.....	446	114	276	7,360	5,440	5,065	174	13,088	14,100	27,188	192	43		
do sail.....	764	884	21,983	26,337	653	892	31,734	59,608	50,917	110,525	1,044	51		
Total United States.....	1,210	998	22,259	33,697	6,093	5,957	31,908	72,696	65,017	137,713	1,236	94		
Grand Total, St. Lawrence Canals.....	8,545	793,176	607,348	114,978	868	5,957	137,690	945,374	751,863	1,697,237	16,084	34		
<b>CHAMBLEY CANAL.</b>														
Canadian vessels, steam.....	371	30,030	30,048	65	.....	.....	359	36,095	30,407	60,502	196	43		
do sail.....	522	9,936	8,995	3,641	.....	5	13,428	13,577	22,428	36,005	513	20		
Total Canadian.....	893	39,966	39,043	3,706	.....	5	13,787	43,672	52,835	96,507	709	63		

## Department of Railways and Canals.

United States vessels, steam.....	25	39	844	387	885	387	1,270	16 16	
do	1,574	5,979	61,936	80,387	67,915	83,664	151,579	1,895 29	
Total United States.....	1,599	6,018	62,780	80,774	68,798	84,051	152,849	1,911 45	
Grand Total, Chambly Canal.....	2,492	45,984	66,486	94,561	112,470	136,886	249,356	2,621 08	
OTTAWA CANALS.									
Canadian vessels, steam.....	871	42,659	93,471	290	42,659	93,761	136,429	564 30	
do	1,188	4,753	141,682	8,798	4,936	150,480	155,416	2,147 42	
Total Canadian.....	2,059	47,412	235,153	9,088	47,595	244,241	291,836	2,711 72	
United States vessels, steam.....	1	1,657	767	90	90	11,589	90	0 60	
do	137	1,657	767	99	1,756	11,589	13,343	312 83	
Total United States.....	138	1,657	767	189	1,846	11,589	13,435	313 43	
Grand Total, Ottawa Canals.....	2,197	49,069	235,920	372	49,441	255,830	305,271	3,025 15	
RIDEAU CANAL.									
Canadian vessels, steam.....	1,422	54,299	52,243	162	54,461	52,953	107,414	750 56	
do	876	25,280	27,448	5,123	30,403	32,021	62,424	770 98	
Total Canadian.....	3,298	79,579	79,691	5,285	84,864	84,974	169,838	1,527 54	
United States vessels, steam.....	65	105	47	200	305	332	637	16 25	
do	127	974	1,755	2,720	3,694	5,074	8,768	163 99	
Total United States.....	192	1,079	1,802	2,920	3,999	5,406	9,405	180 24	
Grand Total, Rideau Canal.....	3,490	80,658	81,493	8,205	88,863	90,380	179,243	1,707 78	
ST. PETER'S CANAL.									
Canadian vessels, steam.....	222	18,142	13,511	18,142	18,142	13,511	31,653	633 06	
do	1,269	32,208	31,103	32,208	32,208	31,103	63,311	1,266 22	
Total Canadian.....	1,491	50,350	44,614	50,350	50,350	44,614	94,964	1,899 28	
United S. and other foreign vessels, steam.....	16	4,732	209	4,732	4,732	209	4,941	98 82	
do	15	2,890	804	528	3,418	804	4,222	84 44	
Total U. S. and other foreign.....	31	7,622	1,013	528	8,150	1,013	9,163	183 26	
Grand Total, St. Peter's Canal.....	1,522	57,972	45,627	528	58,500	45,627	104,127	2,082 54	

No. (A) 16.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.—Continued.

Vessels.	Total Number.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
		Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
<b>TRENT VALLEY CANALS.</b>													
Canadian vessels, steam.....	1,224	21,170	23,366							21,170	23,366	44,536	334 39
do sail.....	586	18,807	20,265							18,807	20,265	39,072	151 25
Total Canadian .....	1,810	39,977	43,631							39,977	43,631	83,608	485 64
United States vessels, steam do sail .....													
Total United States.....													
Grand Total, Trent Valley Canals.	1,810	39,977	43,631							39,977	43,631	83,608	485 64
<b>MURRAY CANAL.</b>													
Canadian vessels, steam.....	519	108,015	45,500	14,523	570			75	11,941	122,613	58,011	180,624	196 16
do sail.....	149	4,095	3,749	104				20		4,219	3,749	7,968	35 05
Total Canadian .....	668	112,110	49,249	14,627	570			95	11,941	126,832	61,760	188,592	231 21
United States vessels, steam do sail .....	9		219	100				45	29	145	248	393	2 25
Total United States .....	13	24	106	106				29	29	180	29	159	3 25
Grand Total, Murray Canal.....	690	112,134	49,468	14,833	570			140	11,999	127,107	62,037	189,144	236 71

# Department of Railways and Canals.

No. (A) 16.—GENERAL STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.—Concluded.  
RECAPITULATION.

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
<b>CANADIAN VESSELS.</b>														
<i>Steam and Sail.</i>														
Welland.....	1,473	158,220	184,437	113,636	9,640		2,058		6,116	89,328	280,030	284,005	564,035	6,743 50
St. Lawrence.....	7,335	792,178	585,089	80,381			119			101,757	872,678	686,846	1,559,524	14,847 40
Chambly.....	883	39,866	39,043	3,706		5				13,787	43,672	52,835	96,507	709 63
Ottawa.....	2,059	47,412	236,163	5,285	9,088				183		47,535	244,241	291,836	2,711 72
Rideau.....	3,298	79,579	79,691	5,285						5,283	84,864	84,974	169,838	1,527 54
St. Peter's.....	1,491	56,350	44,614								50,350	44,614	94,964	1,899 28
Trent Valley.....	1,810	39,977	43,631								39,977	43,631	83,608	485 64
Murray.....	668	112,110	49,249	14,627	570				95	11,941	126,832	61,760	188,592	231 21
Total Canadian.....	19,027	1,319,792	1,260,907	217,635	19,298	5	2,177		6,394	222,636	1,545,998	1,502,906	3,048,904	29,155 92
<b>UNITED STATES VESSELS.</b>														
<i>Steam and Sail.</i>														
Welland.....	939	1,130	864	40,117	8,755		296,469	263,831	4,736	73,008	342,452	346,458	689,910	11,274 80
St. Lawrence.....	1,210	998	22,259	33,697	868		6,093	5,957	31,908	35,933	72,696	65,017	137,713	1,236 94
Chambly.....	1,599	6,018	3,271	62,780						80,774	68,798	84,051	152,849	1,911 45
Ottawa.....	138	1,657	757	10,822	189						1,846	11,580	13,425	313 43
Rideau.....	192	1,079	1,802	2,920	385					3,219	3,999	5,406	9,405	180 24
St. Peter's.....	31	7,622	1,013						528		8,190	1,013	9,163	183 26
Trent Valley.....														
Murray.....	22	24	219	206					45	58	275	277	552	5 50
Total United States.....	4,131	18,528	30,201	139,720	20,830	302,562	269,788	37,406	192,992	498,216	513,811	1,012,027	15,105 62	
Grand total, Canadian and United States.....	23,158	1,338,320	1,291,108	357,355	40,128	304,730	269,793	43,800	415,688	2,044,214	2,016,717	4,060,931	44,261 54	

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

R. DEVLIN,  
Compiler of Canal Statistics.

APPENDIX A—Continued.

No. (A) 17.—COMPARATIVE STATEMENT of Grand Total Freight passed through the undermentioned Canals during the Seasons of Navigation of 1893 and 1894, and the Amount of Tolls collected on the same, including Tolls on Vessels and Passengers.

	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total, Tons.	Amount of Tons.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
1893.												
Welland.....	17,403	103,529	8,741	61,240	247,108	384,559	8,331	463,912	281,583	1,013,240	1,294,823	193,276 14
St. Lawrence.....	216,612	637,436	9,987	1,901	221	1,210	43,716	223,293	272,536	885,840	1,158,376	68,249 13
Chambly.....	9,040	11,872	183,284					108,674	192,324	120,546	312,870	22,049 13
Ottawa.....	1,049	504,955		75,517					1,049	580,472	581,521	35,283 55
Rideau.....	68,247	15,739	11,406	1,723				7,089	79,653	24,581	104,234	5,773 39
St. Peter's.....	10,669	33,226		1,220			491		11,190	36,446	47,606	2,664 08
Trent Valley.....	23,210	8,009							23,210	8,009	31,219	883 22
Murray.....	5,476	8,026	658	1			374	1,805	6,508	9,832	10,340	635 84
1894.												
Welland.....	7,623	117,867	9,597	36,910	230,948	361,319	1,270	242,687	240,438	758,783	1,008,221	159,694 19
St. Lawrence.....	185,780	425,789	17,607	222	224	1,788	44,750	210,618	248,361	638,417	886,778	63,005 43
Chambly.....	11,371	7,934	157,086					101,217	168,487	109,151	277,008	21,149 65
Ottawa.....	353	510,298		51,359					353	561,657	562,010	34,042 78
Rideau.....	45,356	15,475	18,558	1,003				14,087	63,914	30,565	94,479	5,836 39
St. Peter's.....	16,318	39,142							16,318	39,142	55,460	2,637 14
Trent Valley.....	24,268	12,003							24,268	12,003	36,271	1,000 23
Murray.....	8,086	12,098	1,327	120				257	9,413	12,475	21,888	756 20

R. DEVLIN,  
*Compiler of Canal Statistics.*

# Department of Railways and Canals.

## APPENDIX A—Continued.

No. (A) 18.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1894.

### WELLAND CANAL.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	4	32	3	24	8	64	3	24
10	6	60	3	30	2	20		
15	2	30			1	15		
20	5	100	1	20	4	80	2	40
25	2	50			1	25		
30	9	270	1	30				
35	6	210			3	105		
40	3	120	5	200			1	40
45	1	45	1	45				
50	1	50	1	50				
55					1	55		
60			1	60				
65	1	65	1	65			1	65
70					1	70		
75	1	75	1	75				
80	1	80						
85	1	85						
90			1	90				
110			1	110			2	220
115					1	115		
120							1	120
135	1	135						
145			2	290				
150			1	150				
160	1	160	1	160				
165	1	165						
185			2	370				
190			2	380	1	190		
200			2	400				
205							1	205
210	1	210						
220	3	660						
235			1	235			1	235
250			1	250				
260	1	260					1	260
265					1	265	2	530
270	1	270					1	270
275					1	275		
280			1	280	2	560	2	560
285			1	285				
290			1	290			3	870
295	1	295	1	295			2	590
300							2	600
305	1	305			1	305	1	305
310			2	620			5	1,550
315	1	315					5	1,575
320			1	320	1	320	1	320
325			2	650			3	975
330			1	330			1	330
335			3	1,005				
340					1	340		
345					1	345	1	345
355							1	355
360	1	360						
365					1	365		

## APPENDIX A—Continued.

No. (A) 18.—STATEMENT of the Number and Tonnage of all kinds of Vessels,  
&c.—Continued.

## WELLAND CANAL—Continued.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
385							1	385
390							1	390
400	1	400			1	400	1	400
405	3	1,215						
415	1	415						
420					1	420		
430							2	860
435							1	435
440	3	1,320					1	440
455	1	455	2	910	2	910		
460			1	460				
465	2	930						
470					1	470		
475							2	950
480							1	480
485							1	485
490	1	490					1	490
495					2	990		
500	1	500	1	500			2	1,000
505								
510	1	510						
515							1	515
520							1	520
530	1	530						
535							1	535
540					2	1,080	1	540
545	1	545	1	545				
550			1	550	1	550		
555					1	555		
560	1	560						
575							1	575
580							1	580
585	1	585					1	585
590	1	590					1	590
595					1	595	1	595
600	1	600			1	600	2	1,200
605					1	605		
615					1	615		
620					1	620		
625					2	1,250		
630								
640					1	640	1	630
643			1	643				
645					1	645		
650					1	650		
655					1	655	1	655
660					2	1,320		
670					1	670		
680							1	680
681			1	681				
690							1	690
695					1	695	1	695
700							1	700
705					1	705		
707							2	1,414
710					1	710		



# Department of Railways and Canals.

## APPENDIX A.—Continued.

No. (A) 18.—STATEMENT of the Number and Tonnage of all kinds of Vessels,  
&c.—Continued.

### WELLAND CANAL—Continued.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
719			1	719				
725					1	725		
735							1	735
738							1	738
740							1	740
742							1	742
748							1	748
760					1	760		
769	1	769						
771	1	771						
775					1	775		
780					1	780		
787					1	787		
796					1	796		
800					1	800		
802			1	802				
830					1	830		
835					1	835		
837					1	837		
846					1	846		
851					1	851		
859							1	859
870							1	870
880					2	1,760		
892					1	892		
904					1	904		
908			1	908				
911					1	911		
917							1	917
918					1	918		
929	1	929						
940					1	940		
950					1	950		
960							1	960
977	1	977						
985					1	985		
990					1	990		
994							1	994
997					1	997		
1,013					1	1,013		
1,022					1	1,022		
1,029					1	1,029		
1,035	1	1,035			1	1,035		
1,041			1	1,041				
1,053					1	1,053		
1,054					1	1,054		
1,111					2	2,222		
1,118					1	1,118		
1,124					1	1,124		
1,160					1	1,160		
1,170					1	1,170		
1,172	1	1,172						
1,180					2	2,360		
1,189					1	1,189		
1,203					1	1,203		
1,206					2	2,412		

## APPENDIX A—Continued.

No. (A) 18.—STATEMENT of the Number and Tonnage of all kinds of Vessels,  
&c.—Concluded.

## WELLAND CANAL—Concluded.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Number.	Number.	Total Tonnage.	Number.	Total Tonnage.
1,267	1	1,267						
1,319					1	1,319		
1,425					1	1,425		
1,441					1	1,441		
1,547					1	1,547		
1,548					1	1,548		
1,550					1	1,550		
1,553					1	1,553		
Total.....	83	20,972	57	14,868	108	70,280	86	36,701

# Department of Railways and Canals

## APPENDIX A—Continued.

No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1894.

### ST. LAWRENCE CANALS.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	30	240	17	136	5	40		
10	14	140	8	80	1	10		
15	9	135	4	60	1	15		
20	6	120	8	160	4	80		
25	13	325	3	75				
30	10	300	3	90	1	30	1	30
35	6	210			2	70		
40	9	360	10	400	2	80	3	120
45	1	45	3	135				
50	5	250	11	550	4	200		
55	5	275	1	55				
60	7	420	15	900			1	60
65	1	65	6	390			2	130
70	3	210	5	350	2	140		
75	3	225	3	225				
80	1	80	10	800			1	80
85	3	255	6	510			6	510
90	3	270	9	810			11	990
95	1	95	14	1,330			44	4,180
100	3	300	29	2,900	1	100	85	8,500
105	5	525	8	840			17	1,785
110	5	550	9	990			7	770
115	2	230	10	1,150	1	115	8	920
120	1	120	8	960			3	360
125	1	125	3	375			1	125
130	2	260	12	1,560				
135			6	810				
140			9	1,260				
145	3	435	12	1,740				
150			18	2,700				
155	1	155	31	4,805				
160	2	320	23	3,680			1	160
165	2	330	14	2,310			1	165
170			7	1,190				
175	1	175	4	700				
180			4	720				
185			3	555				
190			7	1,330	1	190		
195			3	585			1	195
200	4	800	1	200				
205			1	205				
210			2	420				
220			1	220				
225			1	225				
230	1	230	4	920				
235							1	235
250			1	250				
255			1	255				
260			2	520				
265			2	530	1	265		
270			1	270			1	270
280					1	280		
290			3	870				
295							2	590
300			3	900			2	600

APPENDIX A—*Concluded.*No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels,  
&c.—*Concluded.*ST. LAWRENCE CANALS—*Concluded.*

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
305	1	305	4	1,220	1	305	1	305
310			3	930				
315			2	630				
320	1	320	3	960			3	960
325	1	325	2	650				
330			1	330				
335	1	335	3	1,005			1	335
340			4	1,360			1	340
345	1	345	5	1,725			1	345
350			2	700				
360	1	360	2	720				
365			3	1,095				
370			2	740				
375			2	750				
390			1	390				
400	1	400						
405	1	405						
415			2	830				
435	1	435	1	435			1	435
440			1	440			1	440
445			1	445				
450			1	450				
455	1	455						
465			1	465				
475			1	475			1	475
490			1	490				
495							1	495
500	1	500	1	500				
510	2	1,020						
520			3	1,560				
545	2	1,090	2	1,090				
570			1	570				
580	1	580						
585			1	585				
590	1	590	1	590				
595	1	595						
600	1	600						
630			1	630				
680	1	680						
685			1	685				
695	1	695						
715	1	715						
775	1	775						
780			1	780				
805			1	805				
1,185	1	1,185						
1,485	1	1,485						
Total..	188	22,770	440	69,031	28	1,920	210	24,905

# Department of Railways and Canals.

## APPENDIX A—Continued.

No. (A) 20.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the season of Navigation in 1894.

### RIDEAU, OTTAWA AND CHAMBLY.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	45	360	35	280	8	64	2	16
10	10	100	18	180	5	50		
15	11	165	10	150	3	45		
20	9	180	3	60	4	80	1	20
25	8	200	3	75			1	25
30	6	180	1	30				
35	1	35	3	105				
40	5	200	5	200	1	40		
45			1	45				
50	4	200	7	350			2	100
55	3	165	2	110				
60	2	120	5	300			1	60
65							2	130
70			1	70	1	70	1	70
75	4	300	4	300			4	300
80	2	160	6	480			1	80
85	1	85	3	255			8	650
90	1	90	5	450			23	2,070
95			3	285			87	8,265
100	1	100	9	900			164	16,400
105			5	525			36	3,780
110			6	660			20	2,200
115			3	345			15	1,725
120	2	240	3	360			9	1,080
125	1	125	6	750				
130			4	520				
135			2	270				
140	1	140	5	700				
145	2	290	12	1,740				
150			12	1,800				
155	1	155	30	4,650				
160			17	2,720				
165			13	2,145				
170			5	850				
175			2	350				
180			2	360				
185			2	370				
190			1	190				
195			1	195				
200	1	200	1	200				
230	1	230						
260			1	260				
325	1	325						
335	1	335						
345	1	345						
400	1	400						
<b>Total...</b>	<b>126</b>	<b>5,425</b>	<b>257</b>	<b>24,585</b>	<b>22</b>	<b>349</b>	<b>377</b>	<b>37,001</b>



Department of Railways and Canals.

RIDEAU, OTTAWA AND CHAMBLY.

1	250 to 400 tons	4	1,405	1	260	1	250 to — tons	1	250 to — tons	
2	200 " 249 "	2	430	1	300	2	200 " 249 "	2	200 " 249 "	
3	150 " 199 "	1	153	85	13,630	3	150 " 199 "	3	150 " 199 "	
4	100 " 149 "	7	895	55	6,770	4	100 " 149 "	4	100 " 149 "	244
5	50 " 99 "	17	1,120	36	2,600	5	50 " 99 "	5	50 " 99 "	129
6	Under 50 "	95	1,420	79	1,125	6	Under 50 "	6	Under 50 "	4
	Total	126	5,425	257	24,585		Total		Total	377
										37,001

R. DEVLIN,  
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, 30th September, 1895.

# CANALS CONSOLIDATED

**Sec. 1.**

**No. 22.—RATES OF TOLLS ON THE CANALS OF**

**WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS.**

(O. C., April 18, 1873.)

	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chambly Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals, and St. Ann's Lock, each way.	Ottawa to St. Johns each way.	Murray Canal, each way.
<p>The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.</p>									
<i>Class No. 1.</i>									
Vessel, steam..... per ton.	\$ 0 11 <sup>3</sup> / <sub>4</sub>	\$ 0 11 <sup>3</sup> / <sub>4</sub>	\$ 0 02 <sup>1</sup> / <sub>2</sub>	\$ 0 00 <sup>3</sup> / <sub>4</sub>	\$ 0 00 <sup>3</sup> / <sub>4</sub>	\$ 0 01 <sup>3</sup> / <sub>4</sub>	\$ 0 00 <sup>3</sup> / <sub>4</sub>	\$ 0 01 <sup>3</sup> / <sub>4</sub>	\$ 0 0 <sup>3</sup> / <sub>4</sub>
do sail and other.....	0 02 <sup>1</sup> / <sub>4</sub>	0 02 <sup>1</sup> / <sub>4</sub>	0 03 <sup>1</sup> / <sub>4</sub>	0 01 <sup>1</sup> / <sub>2</sub>	0 01 <sup>1</sup> / <sub>2</sub>	0 02 <sup>1</sup> / <sub>4</sub>	0 01	0 02 <sup>3</sup> / <sub>4</sub>	0 1 <sup>3</sup> / <sub>8</sub>
<i>Class No. 2.</i>									
Passengers, 21 years of age and upwards....	0 10	0 10	0 20	0 10	0 05	0 08	0 02 <sup>1</sup> / <sub>4</sub>	0 09 <sup>3</sup> / <sub>4</sub>	0 11 <sup>1</sup> / <sub>2</sub>
Passengers, under 21 years each.....	0 05	0 05	0 10	0 05	0 02	0 04	0 01 <sup>1</sup> / <sub>4</sub>	0 04 <sup>1</sup> / <sub>2</sub>	0 06 <sup>3</sup> / <sub>8</sub>
<i>Class No. 3.</i>									
Bricks, cement and water lime.....	15	0 20	0 20	0 15	0 10	0 07	0 06	0 19 <sup>3</sup> / <sub>4</sub>	0 17 <sup>1</sup> / <sub>2</sub>
Clay, lime and sand.....									
Brimstone.....									
Corn.....									
Flour.....									
Iron, railway.....									
do pig.....									
do all other, including steel (O.C., Feb. 1, 1888).....									
Plaster, gypsum.....									
Salt.....									
Salt meats or fish, in barrels or otherwise...									
Agricultural products, vegetable, not enumerated.....									
Agricultural products, animal, not enumerated.....									
Stone, for cutting.....									
Wheat.....									
<i>Class No. 4.</i>									
All other articles, not enumerated.....	0 15	0 20	0 20	0 20	0 10	0 26	0 14	0 29	0 21 <sup>1</sup> / <sub>2</sub>



Department of Railways and Canals.

REVENUE

TARIFF OF TOLLS

THE DOMINION OF CANADA, 1894.

TRENT VALLEY CANALS.

(O. C., July 25, 1888.)

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	Tolls Chargeable at Peterborough and Hastings.
Tolls Chargeable at Fenelon Falls.	Tolls Chargeable at Bobcaygeon.	Tolls Chargeable at Buckhorn.	Tolls Chargeable at Burleigh.	Tolls Chargeable at Fenelon Falls.	
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
0 00 $\frac{3}{4}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{4}$ 0 01	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$
0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 04 0 02	0 01 0 00 $\frac{1}{2}$
0 01	0 01	0 01	0 01	0 04	0 01
0 03	0 03	0 03	0 03	0 12	0 03

RATES OF TOLLS

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS.

	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chamby Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals and St. Ann's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
<p>The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.</p>									
<i>Class No. 5.</i>									
Bark .....	0 20	0 20	0 20	0 15	0 10	0 07	0 06	0 19 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Barrels, empty, each .....	0 02	0 02	0 02	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Boat knees, each .....	0 05	0 05	0 05	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Floats, per 1,000 lineal feet .....	1 40	1 40	1 40	1 40	1 20	1 05	0 50	2 05	0 17 $\frac{1}{2}$
Firewood, per cord, in vessels .....	0 20	0 20	0 20	0 20	0 10	0 15	0 08	0 23	0 02 $\frac{1}{2}$
do do rafts .....	0 25	0 25	0 25	0 25	0 15	0 19	0 09	0 30 $\frac{1}{2}$	0 03 $\frac{1}{2}$
Hoops .....	0 25	0 25	0 25	0 20	0 15	0 15	0 10	0 30	0 02 $\frac{1}{2}$
Masts and spars, telegraph poles, per ton of 40 cubic feet, in vessels .....	0 15	0 15	0 15	0 05	0 05	0 08	0 07	0 13 $\frac{1}{2}$	0 00 $\frac{5}{8}$
Masts and spars, telegraph poles, per ton of 40 cubic feet, in rafts .....	0 20	0 20	0 20	0 10	0 10	0 15	0 10	0 22 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Railway ties, in vessels, each .....	0 01	0 01	0 01	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{3}{4}$	0 00 $\frac{1}{2}$	0 01 $\frac{1}{2}$	0 01 $\frac{1}{2}$
do do rafts, each .....	0 02	0 02	0 02	0 01	0 01	0 02	0 01	0 02 $\frac{1}{2}$	0 00 $\frac{3}{8}$
Sawed stuff, boards, plank, scantling and sawed timber, per M. feet, board measure, in vessels .....	0 30	0 30	0 30	0 15	0 10	0 11 $\frac{1}{4}$	0 06 $\frac{3}{4}$	0 20	0 01 $\frac{1}{8}$
Sawed stuff, boards, plank, scantling and sawed timber, per M. feet, board measure, in rafts .....	0 60	0 60	0 60	0 30	0 20	0 19	0 09	0 36 $\frac{1}{2}$	0 03 $\frac{3}{8}$
Square timber, per M. cubic feet in vessels .....	3 00	3 00	3 00	1 00	1 00	0 56	0 44	1 69	0 12 $\frac{1}{2}$
do do rafts .....	4 50	4 50	4 50	2 00	2 00	1 12	0 63	3 13	0 25
Wagon stuff, woodenware and wood, partly manufactured, per ton of forty cubic feet .....	0 40	0 40	0 40	0 40	0 25	0 30	0 20	0 55	0 05
Shingles, per M. ....	0 06	0 06	0 06	0 06	0 04	0 04 $\frac{1}{2}$	0 02 $\frac{1}{2}$	0 08	0 00 $\frac{3}{4}$
Split posts and fence rails, per M., in vessels .....	0 40	0 40	0 40	0 40	0 20	0 23	0 12	0 42	0 05
Split posts and fence rails, per M., in rafts .....	0 80	0 80	0 80	0 80	0 40	0 38	0 17	0 77	0 10
Saw-logs, each, standard log .....	0 08	0 08	0 08	0 08	0 05	0 06	0 06	0 13	0 01
Staves and headings, barrel, per M. ....	0 40	0 40	0 40	0 20	0 15	0 15	0 10	0 30	0 02 $\frac{1}{2}$
do do pipe do .....	1 50	1 50	1 50	1 00	1 00	0 75	0 50	1 75	0 12 $\frac{1}{2}$
do do W. India do .....	0 75	0 75	0 75	0 60	0 25	0 45	0 25	0 65	0 07 $\frac{1}{2}$
do do salt barrel, sawn or cut, per M. ....	0 08	0 08	0 08	0 04	0 03	0 03	0 02	0 06	0 00 $\frac{1}{2}$
Traverses, per 100 pieces .....	0 50	0 50	0 50	0 50	0 40	0 38	0 15	0 67 $\frac{1}{2}$	0 06 $\frac{1}{4}$
Hop poles, per 1,000 pieces .....	2 00	2 00	2 00	2 00	1 50	1 50	0 65	2 65	0 25
<i>Special Class.</i>									
Gypsum, crude (per O. C., 28th Oct., 1882) .....	0 15	0 05	.....	0 05	West ward.	.....	.....	.....	.....
Coal .....	0 20	0 20	0 20	0 15	0 10	0 08	0 05	0 17 $\frac{1}{2}$	0 01 $\frac{1}{8}$
Stone, unwrought, corded, and not suitable for cutting, per cord .....	0 75	0 75	0 75	0 60	0 37 $\frac{1}{2}$	0 28	0 24	0 77 $\frac{1}{2}$	0 07 $\frac{1}{2}$
Kryolite, iron ore or chemical ore .....	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05
Ice .....	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 11	0 05

# Department of Railways and Canals.

## ON THE CANALS—Continued.

### TRENT VALLEY CANALS.

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	
Tolls Charge- able at Fenelon Falls.	Tolls Charge- able at Bobcaygeon.	Tolls Charge- able at Buckhorn.	Tolls Charge- able at Burleigh.	Tolls Charge- able at Fenelon Falls.	Tolls Charge- able at Peterborough and Hastings.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts:
0 01	0 01	0 01	0 01	0 04	0 01
0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 01	0 00 $\frac{1}{4}$
0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 01	0 00 $\frac{1}{4}$
0 13	0 13	0 13	0 13	0 52	0 13
0 03	0 03	0 03	0 03	0 10	0 03
0 04	0 04	0 04	0 04	0 14	0 04
0 02	0 02	0 02	0 02	0 08	0 02
0 02	0 02	0 02	0 02	0 08	0 02
0 01	0 01	0 01	0 01	0 04	0 01
0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$
0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 01	0 00 $\frac{1}{4}$
0 03	0 03	0 03	0 03	0 10	0 03
0 04	0 04	0 04	0 04	0 14	0 04
0 07	0 07	0 07	0 07	0 28	0 07
0 14	0 14	0 14	0 14	0 56	0 14
0 04	0 04	0 04	0 04	0 16	0 04
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 03	0 00 $\frac{3}{4}$
0 03	0 03	0 03	0 03	0 12	0 03
0 05	0 05	0 05	0 05	0 20	0 05
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 03	0 00 $\frac{3}{4}$
0 02	0 02	0 02	0 02	0 08	0 02
0 10	0 10	0 10	0 10	0 40	0 10
0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 22	0 05 $\frac{1}{2}$
0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 02	0 00 $\frac{1}{2}$
0 05	0 05	0 05	0 05	0 20	0 05
0 20	0 20	0 20	0 20	0 80	0 20
Free.	Free.	Free.	Free.	Free.	Free.
0 01	0 01	0 01	0 01	0 04	0 01
0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 14	0 03 $\frac{1}{4}$
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 03	0 00 $\frac{3}{4}$
Free.	Free.	Free.	Free.	Free.	Free.

*St. Peter's Canal.*

Sec. 2. On each and every vessel passing through the said canal, two cents per ton on the vessel and one cent per ton on the freight, each way. O.C. June 23, 1883. Con. O.C. Oct. 26, 1889, sec. 109.

## SPECIAL REGULATIONS RELATING TO TOOLS ON SOME OF THE CANALS.

Sec. 3. Coal may pass up all canals, except the Welland Canal, free of toll. O.C. June 6, 1869. Con. O.C. Oct. 26, 1889, sec. 83.

Sec. 4. Logs, lumber or other produce may pass free of toll down the Chip-pawa Creek, between the Aqueduct and Port Robin-on. O.C. May 18, 1863. Con. O.C. Oct. 26, 1889, sec. 84.

Sec. 5. (a) In view of the dam constructed across the Ottawa River at Carillon whereby the passage of the rapids at that point through the river is rendered difficult and at times impracticable, it appears necessary, owing to the continued difficulty attending passage through the slide built in the dam, that the Canal should be used by rafts, and until otherwise ordered, free passage be given to rafts through the Carillon Canal, subject to such regulations as the Department of Railways and Canals may find necessary in the interest of the traffic of the Canal to adopt. O.C. July 6, 1888.

Sec. 5. (b.) "Save in cases for which special permission may be given the Grenville Canal is closed to the passage of rafts, or of any portion of a raft of any kind whatever." O.C. June 27, 1890.

*Sault Ste. Marie Canal.*

Sec. 6. All vessels and freight shall be permitted to pass through the Sault Ste. Marie Canal free of toll upon such vessels and freight, until otherwise ordered.

Sec. 7. (a.) All goods having paid full toll through the whole line of the St. Lawrence Canal, or through the Lachine Canal, Ste. Ann's Lock, or Ottawa and Rideau Canals, shall be allowed to pass free through the Welland Canal; and if tolls have been paid at the Chambly Canal such toll shall be refunded at Montreal or Kingston Mills; and having paid full tolls through the Welland Canal, they shall be allowed to pass free through the St. Lawrence Canals, or through the Ottawa and Rideau Canals, St. Ann's Locks, the Lachine Canal and Chambly Canal; provided always:—That the articles to be entitled to the above exemptions shall go downwards through the whole length of the canal to Montreal or pass upward from Montreal through the whole length of the St. Lawrence Canals, or the Ottawa and Rideau Canals, to Lake Ontario.

(b.) All articles, goods or merchandise, not enumerated above, shall be charged to Class No. 4. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, sec. 86.

Sec. 8. Goods shipped to any port west of the St. Lawrence Canals, tolls upon which have already been paid for passage through such canals, may be re-shipped from such ports and be passed through the Welland Canal free of tolls, in the same way as if they had been shipped through direct in the first instance; and goods going eastward, having paid Welland Canal tolls, may be transhipped at any port on Lake Ontario, and thereafter pass free through the St. Lawrence Canals, as if they had been shipped through direct in the first instance. O. C. June 23, 1883. Con. O. C. Oct. 26, 1889, sec. 87.

9. Iron ore, kryolite or chemical ore, may pass through one section, or through all the canal sections aforesaid, for 5 cents per ton.

10. No let-passes shall be issued to steam tugs or other small vessels for less than 25 cents, as a minimum charge; but such vessels, not carrying freight or passengers, can obtain, on payment of \$30 a season "Let-Pass," which will pass them up and down the canals as often as desired. O. C. April 18, 1873. Con. O.C. Oct. 26, 1889, sec. 86.

## Department of Railways and Canals.

**Sec. 11.** All vessels owned or chartered by persons having contracts for the enlargement or repair of any of the canals, and employed by them in removing earth or carrying materials necessary for the prosecution of such works, shall be entitled to pass through such canals free of toll upon such vessel and cargo. O.C. April 22, 1884. Con. O.C. Oct. 26, 1889, sec. 35.

**Sec. 12.** Government dredges and scows shall be permitted to pass through the canals free of tolls, but that such dredges and scows shall not be so passed as to interfere with the passage of other vessels of any kind whatever. O.C. May 18, 1891.

### HARBOUR DUES.

**Sec. 13.** Vessels receiving or discharging freight at the premises of the Welland Railway, at Ports Colborne or Dalhousie, are to be free from harbour dues; but all other vessels discharging or receiving cargo at Port Dalhousie, Port Colborne or Port Maitland, shall pay on every ton of freight so received or discharged, two cents. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889.

### WAY RATES.

**Sec. 14.** The following way rates are to be levied on vessels and property passing the several subdivisions of the canals :—

#### *Welland Canal.*

	Rate.
1. From Port Maitland, Dunnville and Port Colborne to Port Robinson or Allanburg, not passing the lock, each way.....	½
2. From Chippawa Cut, or any part thereof, to Dunnville, Port Maitland or Port Colborne.....	5/8
3. From Dunnville to Port Colborne.....	1/4
4. From Thorold to St. Catharines or Port Dalhousie.....	1/4
5. From Maitland, Colborne or Port Robinson to Marshville and intermediate places.....	3/8
6. From Marshville or intermediate places to Port Maitland, Dunnville, Port Colborne and Port Robinson.....	3/8
7. From Port Robinson to Allanburg or Thorold.....	1/4
8. From Port Robinson to St. Catharines or Port Dalhousie.....	1/4
9. From St. Catharines to Port Dalhousie.....	1/4
10. From Dunnville to Maitland.....	1/4
11. From Port Robinson through the Lock and Chippawa Cut.....	1/4
12. From Port Colborne to Port Maitland.....	1/4
13. From Chippawa Cut through Lock to Port Robinson.....	1/4
14. From Colborne, Dunnville, Maitland and Marshville to Thorold.....	1/4
15. From Colborne, Dunnville, Maitland and Marshville to St. Catharines....	1/4
16. Through the Chippawa Cut only.....	1/4
17. Through the Port Robinson Lock only.....	1/4

#### *St. Lawrence Canals.*

**Sec. 15.** The navigation is divided into four sections, viz., Cardinal, Cornwall, Beauharnois and Lachine. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

#### *Chambly Canal.*

	Rate.
<b>Sec. 16.</b> Vessels and property passing from Sorel to Chambly, to pay.....	1/4
Vessels and property passing from Chambly to St. Johns, to pay.....	3/8

Ottawa Canals.

Sec. 17. The navigation is divided into three sections, viz., Grenville, Carillon and St. Ann's. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Rideau Canal.

Sec. 18. The navigation of this canal is divided into three sections, viz., Ottawa, Smith's Falls and Kingston Mills. Vessels and freight passing one section are to be charged one-third; two sections, two-thirds. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889, secs. 77, 78, 79, 80 and 81.

Tay Canal to be part of the Rideau Canal and the following rates of tolls to be levied upon the said Tay Branch of the Rideau Canal system, viz. :—

Perth to Smith's Falls, one section, or one-third of Rideau Canal rates, each way.

Perth to Kingston, 2 sections, two-thirds Rideau Canal rates, each way.

Perth to Ottawa Basin, 2 sections, two-thirds Rideau Canal rates, each way.

Perth to River Ottawa, 3 sections, full Rideau Canal rates, each way. O.C. Sept. 27, 1890.

General.

Sec. 19. (a.) Any fraction of a ton freight is to be charged one ton, and portions of sections are to be charged as a whole section on all the above canals.

(b.) The passing of saw-logs or other lumber through any of the canals, or sections thereof, shall be at all times governed by the regulations for their management. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, sec. 82.

Sec. 20.—STANDARD FOR ESTIMATING WEIGHTS, FOR CANAL TOLLS.

	Tons.		Tons.
2,000 lbs. avoirdupois.....	1	Stone, 12 cubic feet.....	1
Per M. is per thousand feet.....		Stone, 1 cord.....	7½
Per Mille is per thousand pieces.....		Whiskey, 4 barrels or 215 gallons.....	1
Green fruit, 9 barrels are.....	1	Empty barrels, 10.....	1
Ashes, 3 barrels are.....	1	Barrel hoops, 10 mille.....	1
Bark, 4 cords.....	1	Board and other sawed lumber, 600 feet board measure.....	1
Beef, 7 barrels.....	1	Boat knees, 4.....	1
Biscuit and crackers, 9 barrels.....	1	Firewood, 1 cord.....	3
Bricks, common, 1,000.....	2	Hop poles, 60 or 40 cubic feet.....	1
Butter, 22 kegs or 7 barrels.....	1	Shingles, 12 M. or bundles.....	1
Cattle, 3.....	1	Split posts and fence rails, 1 mille.....	1
Cement and water lime, 7 barrels.....	3	Staves and headings, pipe, 1 mille.....	8
Fire bricks, 1,000.....	3	“ “ W. India, 1 mille.....	4
Fish, 7 barrels.....	1	“ “ barrel, 1 mille.....	2½
Flour, 9 barrels.....	1	“ “ salt barrel, 1 mille.....	0½
Gypsum and manganese, 6 barrels.....	1	Saw-logs, standard, 1.....	0½
Horses, 2.....	1	Square timber, 50 cubic feet.....	1
Lard and tallow, 7 barrels or 22 kegs.....	1	Telegraph poles, 10, or 40 cubic feet.....	1
Liquors and spirits, 215 gallons.....	1	Masts and spars, 40 cubic feet.....	1
Liquors, all others, 215 gallons.....	1	Railroad ties, 16, or 50 cubic feet.....	1
Nuts, 9 barrels.....	1	All other woodenware, or partly manufactured wood, 40 cubic feet as per tariff.....	1
Oysters, 6 barrels.....	1	Traverses, 40 cubic feet, or 5 pieces.....	1
Pork, 7 barrels.....	1	Floats, 50 lineal feet.....	1
Salt, 7 barrels.....	1		
Seeds, 9 barrels.....	1		
Sheep, 20.....	1		

NOTE.—By the Weights and Measures Act, chapter 104 of the Revised Statutes of Canada, section 14, all the following named articles are to be estimated by the cental of 100 lbs.

The weight equivalent to a bushel being as follows :—Wheat, 60 lbs.; Indian corn, 56 lbs.; rye, 56 lbs.; pease, 60 lbs.; barley, 48 lbs.; oats, 34 lbs.; beans, 60 lbs.; clover seed, 60 lbs.; timothy seed, 48 lbs.; buckwheat, 48 lbs.; flax seed, 50 lbs.; blue grass seed, 14 lbs.; hemp seed, 44 lbs.; malt, 36 lbs.; castor beans, 40 lbs. potatoes, turnips, carrots, parsnips, beets and onions, 60 lbs.; bituminous coal, 70 lbs.

## Department of Railways and Canals.

### TOLLS AT SHEDS AT LACHINE CANAL BASIN.

Sec. 21. The following tolls shall be levied upon property stored at the sheds at the Lachine Canal Basin :—

	Cents.
Wheat and other grain, per week, per bushel.....	1
Meal do per barrel.....	4
Pork, beef, butter and lard do do .....	5
Muscovado sugar do per hhd., 10 cents, per brl .....	5
Liquors { do per pipe, 15 cents, per pun.....	12
	do per hhd., 10 do per qr. cask. ....
Iron (bars) do per ton .....	24
Iron (pig) do do .....	12
Salt, except at the St. Gabriel sheds do per 100 minots.....	36
Salt at the St. Gabriel sheds, Montreal, after the first 48 hours do per bag.....	$\frac{1}{2}$
Bales, crates, cases, &c. do per ton weight or measurement.....	24
Coals do per chaldron .....	12

Sec. 22. (a.) No charge shall be made for property stored in the sheds at the Lachine Canal basin for the first forty-eight hours, after which period, except in the case of flour, the foregoing rate of storage for the use of the sheds are to be raised, levied and collected :

(b.) Articles unenumerated are to be charged according to the above rates as nearly as the same can be computed.

(c.) All property stored in the sheds remaining after the first forty-eight hours will be liable to one week's storage, although it should only have been stored for a portion of the same, and so on for each succeeding week.

(d.) The labour of receiving property into the sheds and delivering the same shall be at the expense of and be furnished by the owners of the property or their agents.

(e.) All property stored in these sheds shall be at the risk of the proprietor from damage by fire or otherwise.

(f.) All dues for storage shall be paid before the removal of the property. O.C. Aug. 21, 1846, Oct. 28, 1846. Con. O.C. Oct. 26, 1889, sec. 90 and 91.

### *Flour.*

Sec. 23. (a.) Flour shall be allowed to remain in the sheds for two whole days free of charge.

(b.) If kept there beyond two days or 48 hours, such flour shall be liable to a charge of one cent per day per barrel for the first four days after the expiration of the 48 hours of exemption.

(c.) Should the flour be kept in the sheds beyond four days at one cent per day per barrel, it shall be liable to pay two cents per day per barrel for every day subsequent to the expiration of such four days.

(d.) Any part of a day shall be considered as one day. O.C. May 31, 1856. Con. O.C. Oct. 26, 1889, sec. 92.

### WHARFAGE DUES ON COAL FOR LOCAL CONSUMPTION IN MONTREAL.

Sec. 24. Coal for local consumption in Montreal, landed on canal property between Montreal harbour and Cote St. Paul, from vessels other than sea-going, and entering the Lachine Canal from Montreal harbour, shall be charged wharfage dues at the rate of five cents a ton.

Coal screenings shall be charged 3 cents a ton. Con. O.C. Oct. 26, 1889, sec. 93. O.C. May 18, 1892.

CHARGES FOR WHARFAGE ON FIREWOOD ON WHARFS AND BANKS OF LACHINE CANAL.

Sec. 25. The following rates of tolls shall be collected as herein mentioned, that is to say :—

(a.) Firewood landed on wharfs or banks of the Lachine Canal, or in boats, barges or other craft occupying any of the basins between Wellington Street bridge and Lock No. 3, four cents per cord, and for every day the wood is allowed to remain in either the canal or basin, or on the wharfs or banks after the first five days, an additional charge of four cents per cord. O.C. Aug. 7, 1860. Con. O.C. Oct. 26, 1889, sec. 94.

(b.) The clause next preceding shall not only apply to the rates of toll to be collected on firewood on wharfs at Lachine, and the Lachine Canal and basin, but are also extended and made applicable to the banks and grounds at C6te St. Paul, and at Lachine. O.C. Jan 27, 1862. Con. O.C., 1889, sec. 94.

CANAL BASINS IN MONTREAL PART OF MONTREAL HARBOUR.

Sec. 26. Whereas under existing regulations for the collection of canal tolls, eastern bound vessels having paid the charges one way in full through the Welland Canal are chargeable one section canal toll if re-entering the Lachine Canal;

And whereas vessels loaded with grain destined for the Montreal harbour frequently unload only part of their cargoes on board sea-going vessels in that harbour, and re-enter the Lachine Canal for the purpose of unloading the balance of their cargoes either in elevators or mills located along the canal basins;

It is ordered, that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal harbour, in so far only as regards the collection of tolls on the class of vessels above referred to, which re-enter that portion of the canal for the purpose of unloading the balance of their cargoes, but that the same shall not apply any further, as in the event of vessels returning to the harbour to take cargo, in which case the usual toll shall be charged against them on passing out of the canal a second time into the harbour. O.C. Aug. 8, 1878. Con. O.C. Oct. 26, 1889, sec. 95.

PHOSPHATES.

Sec. 27. Whereas vessels laden with grain for delivery in Montreal harbour frequently carry also deck-loads of phosphates, and being compelled to proceed at once to the harbour for the discharge of the grain, they pay tolls through to that point, subsequently re-entering the Lachine Canal for the storage of the phosphates, and in accordance with the existing regulations, paying canal dues a second time for such re-entry;

It is ordered, that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal harbour, for the purposes of the unloading of phosphates carried by vessels in addition to their grain cargoes as described in this section; it being, however, provided that in the event of their returning to the harbour to take cargo, the usual tolls shall be charged against such vessels on their passing out of the canal a second time. O.C. July 12, 1881. Con. O.C. Oct. 26, 1889, sec. 96.

WHARFAGE DUES IN ALL BASINS OF THE LACHINE CANALS ON SEA-GOING VESSELS

Sec. 28. The Montreal Harbour Commissioners shall be allowed to retain the right of levying dues in respect of the old lower basin of the Lachine Canal, but the Government shall retain full control of the new works and basin of said canal, and of the revenue that may be derived from their use.

All property delivered or received by sea-going vessels in the Lachine Canal basins at Montreal (except the old lower basin) shall be charged wharfage dues as follows :—



## Department of Railways and Canals.

	Per Ton.
All goods, wares and merchandise, not elsewhere specified.....	25 cts.
Hay, straw, pig and scrap iron, pot and pearl ashes.. .. .	20 cts.
Apples, crates and their contents, flour and meal, fish, meats, pitch, potatoes, tar, horses, neat cattle, sheep, swine .....	15 cts.
Ballast, clay, fire-bricks, gypsum, lime, marble, phosphates, sand, salt .....	10 cts.
Coal and coke, grain and seeds of all kinds.....	7½ cts.
Special—Bricks, 10 cents per 1,000; cordwood, 5 cents per cord; lumber, 10 cents per 1,000 feet, board measure.	
Bullion specie .....	Free.
Coal screenings.....	3 cts.

Each entry shall pay not less than five cents.

All property landed on the canal wharfs for reshipment, or transhipped in canal waters shall pay one wharfage only.

Lumber upon which tolls have been paid for passage down the Lachine Canal, and which is reshipped from the wharfs or vessels into sea-going vessels shall pay wharfage dues equal to one section of canal tolls, viz., 3½ cents per 1,000 feet board measure. O. C. Jan. 26, 1883. Con. O. C. Oct. 26, 1889, secs. 98, 99, 100 and 101. O. C. May 18, 1892.

### Sec. 19.—Standard for Estimating Weights.

Ashes, pot or pearl.....	3 brls.	to 1 ton.
Apples, flour, meal, potatoes .. . . .	9 do	1 do
Fish, meats, pitch, tar.....	7 do	1 do
Horses .....	2 to	1 ton.
Neat cattle .....	3 to	1 do
Sheep .....	15 to	1 do
Swine .....	10 to	1 do

O. C. April 1, 1881. Con. O. C. Oct. 26, 1889, sec. 102.

### TOLLS ON FLOATED TIMBER, &C., ENTERING THE BASIN AT LACHINE.

Sec. 30. The following rates of tolls shall be collected on floated timber, lumber and firewood entering the basin at Lachine and Lachine Canal:—

Kinds of Timber.	For receiving Tim- ber, &c., to include use of basin and wharf for 1 month.	For each succeeding month during the season of naviga- tion.	For wintering in ba- sin or on wharf.
	Cents.	Cents.	Cents.
Timber, square or round, of all kinds, above 12 x 12, per M. cubic feet. . .	25	20	35
Timber, round or flatted, of all kinds, under 12 x 12, per M. lineal feet. .	20	15	30
Planks and boards to include all kinds of sawed lumber in rafts, per M. feet board measure.....	3	2	3
Saw-logs, 12 feet long, if longer, in same proportion per log.....	1	½	2
Floats, per 100 .....	10	5	10
Traverses, per 100 .....	10	5	10
Fence posts and rails, per M. ....	10	5	10
Staves, barrel, per M. ....	8	4	8
do pipe do .....	8	4	8
do West India, per M. ....	8	4	8
Firewood on bank of canal between Lock No. 3 and Lock No. 5, and also on wharfs in canal basin at Lachine.....	3	.....	.....

*Note.*

Sec. **31.** (a.) No allowance shall be made for fractional parts of a month or winter season.

(b.) The firewood shall be corded across the bank while being delivered from the boat in such manner and at such points as the superintending engineer may direct.

(c.) The rates on timber to take effect upon the completion of the booms in Lachine Canal. O. C. June 8, 1860. Con. O. C. Oct. 26, 1889, secs. 103 and 104.

## CHARGES ON VESSELS WINTERING IN LACHINE CANAL.

Sec. **32.** The following rates per ton shall be charged for wintering vessels in the Lachine Canal, viz.: For each boat, barge, scow or other vessels of ten tons measurement or under, seventy cents per vessel for the entire winter, and every ten tons above the first ten, an additional rate of eight cents. O. C. Aug. 22, 1879. Con. O. C. Oct. 26, 1889, sec. 97.

## CHARGES FOR WINTERING VESSELS IN RIDEAU CANAL.

Sec. **33.** The winterage dues for vessels wintering in the canal basin, at Ottawa, or other points along the line of the Rideau Canal, shall be as follows:—

In canal basin, Ottawa, steamers per season .. . . . . .	\$ 8.00
do do barges do .. . . . . .	4.00
Inside locks do steamers do .. . . . . .	50.00
do other stations do do .. . . . . .	15.00

If the Minister of Railways and Canals deems it advisable, he is authorized to take security from parties wintering their vessels in locks against damage to government property by fire. O. C. March 19, 1887. Con. O. C. Oct. 26, 1889, sec. 105.

## CHARGES FOR WINTERING VESSELS IN THE OTTAWA RIVER CANALS AND LOCKS.

Sec. **34.** The charge for vessels wintering on the Ottawa River canals and locks, and the same is hereby prescribed accordingly, namely:—

In Carillon Canal, steamers, per season .. . . . . .	\$ 8.00
do barges do .. . . . . .	4.00
Grenville Canal, steamers do . . . . .	8.00
do barges do . . . . .	4.00
Inside locks, Ste. Anne, Carillon and Grenville Canals, steamers, per season .. . . . . .	25.00
Inside locks, Culbute Canal, per season .. . . . . .	15.00

Such security against damage by fire to be taken by way of bond, as in the opinion of the Minister of Railways and Canals may seem desirable. O. C. Oct. 14, 1892.

Sec. **35.** No charges to be made for vessels wintering outside the locks of any government canal. O. C. Dec. 12, 1889.

## CHARGES FOR REPAIRING VESSELS ON THE BANKS OF CANALS.

Sec. **36.** (a.) Persons using the banks of the Lachine Canal as a site for the repair of their vessels shall be subject to a charge of four dollars, payable in advance, for each vessel; the period during which such site may be

## Department of Railways and Canals

occupied under any one payment being limited to six months, and permission for repairing being first obtained from the proper officer, in conformity with existing canal regulations.

(b) In the event of failure to remove vessels so occupying the banks at the expiration of the period named, no fresh permits having been obtained, such vessels may be sold under the 16th section of the Canal Regulations. O. C. March 5, 1880. Con. O. C. Oct. 26, 1889, sec. 106.

Sec. 37. Rules with respect to the repairing of vessels on the banks of the Lachine Canal, the Beauharnois and the Chambly:—

(a) Repairs shall only be executed at such points as may be indicated and approved by the superintending engineer:

(b) For each vessel hauled up or beached for repairs, a charge of one dollar, over and above all other charges, shall be made, carrying the privilege of remaining one month, a further sum of one dollar being charged for each additional month or fraction of a month the vessel may remain.

(c) In cases, however, where a vessel hauled up for repairs upon the canal bank remains there throughout the winter, a charge of four dollars only shall be made (in addition to the ordinary winterage dues), the period covered being from the 1st November to the 1st June, inclusive.

(d) Any vessel remaining on the canal bank after having wintered thereon shall be charged at the rate of one dollar a month or fraction of a month of her subsequent stay.

(e) Any vessel remaining more than one year on the bank of the canal shall for such time as she may remain in excess of that period, pay at the rate of two dollars a month or fraction of a month throughout the whole year.

(f) All charges shall be payable at the collector's office in advance on first day of each month.

(g) These rules shall be understood as applying to all cases where the canal bank is used in any manner for the repairs of vessels, whether such vessels are actually hauled up or not. O. C. August 6, 1881. Con. O. C. Oct. 26, 1889, sec. 107.

### DRY DOCK CHARGES.

#### *Trent Valley Canal.*

Sec. 38. The following tolls and dues shall be charged for the use of the dry dock at Bobcaygeon, and of any of the locks on the Trent Valley Canal, during the winter or other shorter period:—

For Vessels	Wintering.	Per day.	Per week.
Over 15 tons.....	\$30.00	\$4.00	\$12.00
15 tons and under.....	\$20.00	3.00	10.00

(O. C. Oct. 31, 1890.)

#### *Rideau Canal.*

Sec. 39. The following tariff of tolls and regulations shall be, and the same are hereby established for the use of the dry dock on the Rideau Canal at Ottawa:—

(1) Steamers entering dock.....	\$8.00
Each day or portion of a day after day of entrance.....	2.50
(2) Barges entering dock.....	5.00
Each day or portion of a day after day of entrance.....	2.50
(3) Steam yachts or launches .....	5.00
Each day or portion of a day after day of entrance.....	2.50
(4) Boats wintering in the dry dock from the close to the opening of navigation.....	50.00
For every day such boat remains in the dock after the opening of navigation.....	8.00

(5) No vessel of any class shall be in the dock over six days after notice is given in writing by the lockmaster that the dock is required for another vessel unless a satisfactory agreement between all parties interested is arrived at.

(6) All entrance and discharge of vessels are covered by entrance fee.

(7) All drying off of vessels of all classes in the locks at Ottawa or Hartwell's during the season of navigation is prohibited unless for special reasons.

The owners of vessels of all classes to render the required assistance to open and close the gate under the supervision of the superintending engineer.

Vessel owners to supply all blocks, &c., to shove their boats up to make the necessary repairs, and all refuse to be properly cleared out to the entire satisfaction of the lockmaster before leaving the dock.

(O.C. Dec. 28, 1893.)

Sec. 40. The use of horses for towage purposes between the lower entrance of the Cornwall Canal and lock No. 20, be prohibited during the works of enlargement of that portion of the Cornwall Canal.

(O.C. Aug. 20, 1890.)

Sec. 41. As the prohibition of the use of horses for towing purposes, between the lower entrance of the Cornwall Canal and Lock No. 20 during the progress, of the works of canal enlargement, has entailed the use of tugs and consequently expenses to the parties concerned, that all tugs, used solely for the purpose of towing on the section in question, be permitted to pass free of toll, up and down the canal between the lower entrance of the canal and lock No. 20, until the completion of the enlargement of the works on that section. (O. C. Sept. 27, 1890.)

SPECIAL RATES FOR SEASON OF 1894 ONLY.

Sec. 42. For season of 1894, the canal tolls for the passage of the following food products:—Wheat, Indian corn, pease, rye, oats, flax-seed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton; payment of the said tolls of ten cents per ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals. O. C. April 16 1894.

Sec. 43. That for the current season of navigation of 1894 only in the case of steamers specially chartered for the conveyance of excursion parties going and returning the same day, a reduction amounting to one-half of the usual tolls, be allowed for passage through the government canals. O. C. May 28, 1894.

Department of Railways and Canals.

APPENDIX No. 16.

RAILWAY STATISTICS

OF THE

DOMINION OF CANADA

For the year ended 30th June, 1895

Compiled by Mr. Thomas Ridout, C.E., from sworn Returns furnished by the several Railway Companies.

COLLINGWOOD SCHREIBER,

*Chief Engineer of Railways and Canals.*

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

Year.	Miles in Operation.	Year.	Miles in Operation.
1835	0	1866	2,278
1836	16	1867	2,278
1837	16	1868	2,278
1838	16	1869	2,524
1839	16	1870	2,617
1840	16	1871	2,695
1841	16	1872	2,899
1842	16	1873	3,613
1843	16	1874	3,832
1844	16	1875	4,331
1845	16	1876	4,804
1846	16	1877	5,218
1847	54	1878	5,782
1848	54	1879	6,126
1849	54	1880	6,858
1850	66	1881	7,194
1851	159	1882	7,331
1852	205	1883	8,697
1853	506	1884	9,577
1854	764	1885	10,273
1855	877	1886	10,773
1856	1,414	1887	11,793
1857	1,444	1888	12,184
1858	1,863	1889	12,585
1859	1,994	1890	13,151
1860	2,065	1891	13,838
1861	2,146	1892	14,564
1862	2,189	1893	15,005
1863	2,189	1894	15,627
1864	2,189	1895	15,977
1865	2,240		

## Summary statement for year ended 30th June, 1895:—

Miles of railway completed (track laid).....	16,091
do sidings.....	2,054
do iron rails on main line ..	346
do steel do .....	15,745
do steel on double track.....	533
Capital paid, including the four following items.....	\$894,640,559
Government bonus paid.....	158,621,646
do loans paid.....	21,569,149
do subscriptions to shares paid.....	300,000
Municipal aid paid.....	14,180,686
Miles in operation.....	15,977
Earnings.....	\$46,785,487
Working expenses.....	32,749,669
Net earnings.....	14,035,818
Passengers carried.....	13,987,580
Freight carried (tons).....	21,524,421
Train mileage.....	40,661,890
Passengers killed.....	9
Number of grain elevators.....	53
do guarded level crossings.....	151
do unguarded do.....	10,430
do overhead bridges.....	398
do level crossings of other railways.....	218
do junctions do.....	316
do do branch lines.....	232
do engines owned.....	1,948
do do hired.....	75
do sleeper and parlour cars owned.....	156
do do do hired.....	60
do first class cars owned.....	1,011
do do hired.....	65
do second class and immigrant cars owned.....	694
do do do hired.....	8
do baggage, mail and express cars owned.....	1,129
do do do hired.....	25
do cattle and box cars owned.....	33,577
do do do hired.....	2,783
do platform cars owned.....	15,441
do do hired.....	317
do coal and dump cars owned.....	4,841
do do do hired.....	4

# Department of Railways and Canals.

## Nominal Capital Paid, up to 30th June, 1895.

	Miles constructed.	Amount.	Per Mile.	Remarks.
		\$    cts.	\$    cts.	
Ordinary share capital.....	16,091	255,769,556 48	15,895 19	
Preference do .....	16,091	105,680,033 71	6,567 64	
Bonded debt.....	16,091	330,785,545 96	20,557 18	
Aid from Dominion Government.....	16,091	150,763,282 71	9,369 41	
do Ontario do .....	6,377	6,747,238 24	1,058 06	} Equal to an aver- age of \$881.28 per mile on to- tal mileage.
do Quebec do .....	3,156	14,426,304 09	4,571 07	
do New Brunswick Government.....	1,404	4,453,800 00	3,172 22	
do Nova Scotia Government.....	889	1,437,108 53	1,616 54	
do Prince Edward Island Government.....	211	.....	.....	
do Manitoba Government.....	1,472	2,625,561 77	1,783 67	
do British Columbia Government.....	810	37,500 00	46 29	
do North-west Territories Government.....	1,772	.....	.....	
do Municipalities in Ontario.....	6,377	10,489,183 37	1,644 84	
do do Quebec.....	3,156	2,544,218 62	806 15	
do do New Brunswick.....	1,404	336,500 00	239 67	
do do Nova Scotia.....	889	177,685 00	199 87	
do do Prince Edward Island.....	211	.....	.....	
do do Manitoba.....	1,472	595,600 00	404 62	
do do British Columbia.....	810	37,500 00	46 29	
do do North-west Territor's.....	1,772	.....	.....	
Capital from other sources.....	16,091	7,733,940 67	480 63	
Total paid Capital.. ..	16,091	894,640,559 15	55,598 82	

GOVERNMENT and Municipal Loans, Bonuses, &c., promised to Railways completed and under construction up to 30th June, 1895:—

Dominion Government.....	\$	153,996,777 68
Ontario do .....		7,265,538 24
Quebec do .....		16,463,115 27
New Brunswick Government.....		4,656,300 00
Nova Scotia do .....		2,036,916 53
Manitoba do .....		2,626,611 77
British Columbia do .....		37,500 00
Municipalities in Ontario.....		10,783,642 78
do Quebec.....		4,309,074 00
do New Brunswick.....		356,500 00
do Nova Scotia.....		269,685 00
do Manitoba.....		595,600 00
do British Columbia.....		37,500 00
Total .....	\$	203,434,761 27

## FATAL ACCIDENTS during year ended 30th June, 1895.

	Passengers Killed.	Employees Killed.	Others Killed.	Total Killed.
Falling from cars or engines.....	1	17	7	25
Getting on or off trains in motion.....	7	1	12	20
At work making up trains.....		3		3
Coupling cars.....		9		9
Collisions and derailments.....	1	5		6
Striking bridges..			1	1
Walking or being on track.....		6	85	91
Explosions.....				
Other causes.....		10	22	32
Total.....	9	51	127	187

## LAND GRANTS made by Governments to Railways, completed and under construction up to 30th June, 1895.

Name of Railway.	Government.	Acres Granted.	Acres Sold.	Amount Realized.
				\$
Alberta Railway and Coal Co.....	Dominion.....	320,000	} 834,048	1,101,733
North-west Coal and Navigation Co.....	do.....	708,400		
Calgary and Edmonton.....	do.....	2,176,000		
Canadian Pacific.....	do.....	26,772,800	3,824,887	11,867,285
do.....	do.....		† 6,793,014	10,189,521
do.....	do.....	††Town sites net proceeds		1,167,958
Great North-west Central.....	do.....	2,880,000	Nil	Nil
Manitoba and North-western.....	do.....	2,726,400	} 584,412	953,911
Saskatchewan and Western.....	do.....	96,000		
Manitoba South-western Colonization.....	do.....	1,396,800	286,911	1,243,344
Manitoba and South-eastern.....	do.....	704,000	Nil	Nil
Qu'Appelle, Long Lake and Saskatchewan.....	do.....	2,220,800	1,126,230	*
Winnipeg Great Northern.....	do.....	8,480,000	Nil	Nil
Wood Mountain and Qu'Appelle.....	do.....	1,536,000	Nil	Nil
Yarmouth and Annapolis.....	Nova Scotia.....	150,000		
Columbia and Kootenay.....	British Columbia.....	200,000	Town sites	61,567
Esquimalt and Nanaimo.....	do.....	1,900,000		258,295
Nelson and Fort Sheppard.....	do.....	614,400	Nil	Nil

\* Again after efforts to obtain a statement of the amounts realized from the sale [of these lands, the companies have failed to give the information—the return, therefore, in this respect is incomplete.

† Transferred back to the government at \$1.50 per acre.

†† Outside of the grant of 26,772,800 acres.



## Department of Railways and Canals

TABLE showing Location of the Railways of the Dominion of Canada, 30th June, 1895.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Alberta Railway and Coal Co. . . . .	From Lethbridge in District of Alberta, N.W.T., to Coutts, on International boundary. The portion from Dunmore to Lethbridge 109½ miles was changed to 4'-8½" gauge and leased to Can. Pac. Ry., 29th Nov., 1893. . . . .		64 62
Albert Southern . . . . .	Harvey Branch Junction to Alna, N.B. . . . .		16 00
Baie des Chaleurs . . . . .	Metapedia Station on C. P. R. to Caplin . . . . .		80 00
Bay of Quinté and Navigation Co. . . . .	Deseronto, on Bay of Quinté, Lake Ontario to Deseronto Junction, Grand Trunk Railway. . . . .		4 00
Buctouche and Moncton. . . . .	Moncton, on Intercolonial Railway, to Buctouche, N. B. . . . .		32 00
Brockville, Westport and Sault Ste. Marie. . . . .	Brockville to Westport, Ont. . . . .		45 00
Calgary and Edmonton . . . . .	Calgary to Edmonton . . . . .	190 97	
	do McLeod, District of Alberta. . . . .	104 10	
			295 07
Canada Atlantic . . . . .	City of Ottawa to Junction with Grand Trunk at Lacolle. Crosses the St. Lawrence at Coteau by bridge. Connects with Grand Trunk Railway at Coteau and Lacolle. . . . .		138 00
Central Counties . . . . .	From Glen Robertson, on Canada Atlantic, to Hawkesbury, Ont. . . . .		21 00
Canada Southern . . . . .	Main Line—Windsor, Ont., to Suspension Bridge . . . . .	226 18	
	Amherstburg Branch—Essex Centre to Amherstburg . . . . .	15 70	
	St. Clair Branch—St. Clair Junction to Courtright. . . . .	62 63	
	Fort Erie Branch—Fort Erie to Welland Junction . . . . .	17 50	
	Erie and Niagara Branch—Old Fort Erie to Niagara. . . . .	30 60	
	Oil Springs Branch—Oil Springs to Oil City. . . . .	5 50	
Leased . . . . .	Sarnia, Chatham and Erie—Oil City to Petrolia . . . . .	7 00	
do . . . . .	Leamington and St. Clair—Comber to Leamington . . . . .	15 95	
			381 06
Canada Eastern . . . . .	Late Northern and Western of New Brunswick—Gibson, opposite City of Fredericton to Chatham Junction, I. C. R. . . . .	107 00	
	Chatham Junction to Chatham and Logieville via Nelson . . . . .	20 00	
	Blackville to Indiantown . . . . .	9 00	
			136 00
Canadian Pacific:			
Owned . . . . .	Main Line—Callander to Vancouver . . . . .	2,560 90	
(Canada Central) . . . . .	do Ottawa to Callander . . . . .	223 60	
Que., Mont., Ottawa & Occidl) . . . . .	do Montreal to Ottawa . . . . .	120 30	
do . . . . . (North Shore)	do Quebec to St. Martin's Junction . . . . .	159 80	
	Branches—Piles Junction to Grand Piles . . . . .	26 90	
	do Berthier Junction to Berthier . . . . .	2 00	
	do Joliette Junction to St. Félix. . . . .	16 80	
	do Ste. Thérèse Junction to St. Jérôme . . . . .	13 60	
	do do to St. Eustache . . . . .	6 00	
	do St. Lin Junction to St. Lin . . . . .	15 00	
	do Buckingham to Buckingham Village. . . . .	4 20	
	do Hull to Aylmer . . . . .	7 50	
Brockville & Ottawa Railway) . . . . .	do Carleton to Brockville. . . . .	45 00	
	do Sudbury to Sault Ste. Marie. . . . .	182 50	
	do Sudbury to Copper Mines . . . . .	5 00	
	do Winnipeg Junction to Emerson. . . . .	64 50	
	do Winnipeg Junction to Manitou . . . . .	100 10	
	do Rosenfeldt to Gretna . . . . .	13 70	
	do Winnipeg to West Selkirk. . . . .	22 50	
	do Air Line Junction to Stonewall . . . . .	18 00	
	do Kennay to Estevan . . . . .	156 20	
	do Glenboro' to Souris. . . . .	45 70	
	do Deloraine to Napinka . . . . .	18 60	
	do Menteith Junction to Reston. . . . .	31 30	
	do North Portal to Pasqua . . . . .	160 30	
	do New Westminster Junction to New Westminster . . . . .	8 20	

TABLE showing Location of Railways, &amp;c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
<b>Canadian Pacific—Continued.</b>	Branches—Mission Junction to Mission.....	10·10	
	do Revelstoke towards Arrow Lake.....	10·00	
	do Vancouver to Coal Harbour.....	1·20	
	Total mileage owned.....	4,049·50	
<b>Leased lines . . . . .</b>	Atlantic and North-west (in Canada)—		
	South end Lachine Bridge to Maine bound-		
	ary, Que. .... 182·50		
	Renfrew to Eganville, Ont. .... 22·50		205·00
	St. Lawrence and Ottawa—		
	Ottawa to Prescott, Ont. .... 51·80		
	Chaudière Junction to Sussex st., Ottawa..	6·60	58·40
	Ontario and Quebec—		
	Mile End Junction to South End Lachine		
	Bridge..... 9·10		
	Montreal, Windsor st., to Toronto.....	339·00	
	London to Windsor..... 112·50		
	Toronto Junction to Strachan avenue.....	3·20	
	Leaside Junction to Union Station Toronto	5·20	469·00
	Credit Valley—		
	Toronto Junction to St. Thomas..... 116·10		
	Streetsville Junction to Melville Junction..	31·70	
	Cataract to Elora..... 27·30		175·10
	West Ontario Pacific—London to Woodstock.....		26·60
	Toronto, Grey and Bruce—		
	Toronto Junction to Owen Sound..... 116·90		
	Orangeville Junction to Teeswater.....	69·40	
	Glenannan to Wingham..... 5·00		191·30
	Guelph Junction—		
	Guelph Junction on Credit Valley Ry. to Guelph..		15·00
	Montreal and Western—		
	St. Jérôme to Labelle..... 70·00		
	Montreal and Lake Maskinongé—		
	St. Félix to St. Gabriel de Brandon.....		12·90
	Montreal and Ottawa—		
	Vaudreuil to Point Fortune..... 23·60		
	St. John and Maine—		
	Carleton, N.B., to Vanceboro'..... 91·80		
	New Brunswick Railway (in Canada)—		
	Gibson to Woodstock..... 62·90		
	Newbury Junction to Edmundston.....	105·50	
	Aroostook Junction to Boundary..... 5·00		
	Fairville to St. John River..... 0·55		173·95
	St. John Bridge and Railway Extension—		
	St. John to west side of St. John River.....		1·75
	New Brunswick and Canada Ry. (in Canada)—		
	McAdam Junction to St. Stephen..... 33·90		
	Watt do St. Andrew's..... 27·50		
	McAdam do Woodstock..... 50·80		
	Debec do Maine boundary..... 5·00		117·20
	Fredericton Railway—		
	Fredericton Junction to Fredericton.....		22·10
	Tobique Valley—		
	Perth to Plaster Rock, N.B..... 28·00		

# Department of Railways and Canals.

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canadian Pacific— <i>Continued.</i> Leased lines .....	Manitoba South-western Colonization—		
	Manitoba to Deloraine .....	101' 00	
	Winnipeg to Glenboro' .....	104' 20	
	Elm Creek to Barnsley .....	12' 60	
		217' 80	
	Columbia and Kootenay—Robson to Nelson—		
	Kootenay Lake to Columbia River .....	27' 70	
	Shuswap and Okanagan—		
	From Junction with C. P. R. at Sicamous to Lake Okanagan .....	51' 00	
	Nakusp and Slocan—		
	Nakusp on Arrow Lake to Three Forks of Carpenter's Creek, B. C. ....	36' 90	
Alberta Railway—			
Dunmore to Lethbridge, N. W. T. ....	109' 50		
	Total mileage leased .....		2,124' 60
	do owned .....		4,049' 50
	do in Can. Pac. system .....		6,174' 10
Canadian Government Railways.	Intercolonial—		
	Halifax to Lévis .....	675' 00	
	Moncton to St. John .....	89' 00	
	Truro to Trenton .....	44' 00	
	New Glasgow to Mulgrave .....	82' 00	
	Stellarton to Pictou .....	14' 00	
	Trenton to Pictou Landing .....	7' 00	
	Pt. Tupper to Sydney .....	91' 00	
	Branch to North Sydney .....	5' 00	
	do Pt. du Chêne to Painsec .....	11' 00	
	do Dalhousie .....	7' 00	
	do St. Charles .....	25' 00	
	do Dartmouth .....	4' 00	
	do Indiantown .....	14' 00	
	do Oxford Junction to Brown's Pt. ..	67' 00	
	do Pugwash .....	5' 00	
		1,140' 00	
Prince Edward Island—			
Main Line—Alberton to Georgetown .....	147' 00		
Branch—Mount Stewart to Souris .....	38' 40		
do Alberton to Tignish .....	13' 10		
do Emerald to Cape Traverse .....	12' 10		
	210' 60		1,350' 60
Caraquet .....	From Gloucester Junction, Intercolonial Railway, 5 miles south of Bathurst Station, easterly along the south shore of Baie des Chaleurs to Shippigan Harbour, N. B. ....		68' 00
Carillon and Grenville .....	Carillon to Grenville, Que., connecting at both termini with Ottawa River Navigation Company's steamers (Gauge, 5 ft. 6 in.) .....		13' 00
Central Ontario .....	From Picton, in Prince Edward County, Ont., to Coe Hill Iron Mines, Wollaston, County of Hastings; connects with Grand Trunk at Trenton, Midland Railway, 2 miles west of Stirling, and with Ontario and Quebec, in Township of Rawdon .....		104' 00
Central Railway of New Brunswick .....	From Norton Station, on the Intercolonial Railway, to Chipman .....	45' 00	
	From Hampton to Quaco (formerly St. Martin's and Upham Railway) .....	30' 00	
			75' 00

TABLE showing Location of Railways, &amp;c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Cumberland Railway and Coal Company (formerly Spring Hill and Parrsboro').	Spring Hill Junction, Intercolonial Railway, to Spring Hill Coal Mines, N.S., and Parrsboro', on the Bay of Fundy	32 00	46 00
	Spring Hill and Oxford Branch, from Spring Hill Mines to Oxford Village on the Oxford and New Glasgow Branch, I.C.R.	14 00	
Drummond County.	Ste. Rosalie, Que., junction with Grand Trunk Railway, to St. Leonard, thence to Moose Park towards Chaudière.	72 97	90 53
	St. Leonard to Nicolet and Ball's Wharf, on the St. Lawrence.	17 06	
	Mitchell to Burrill's Mill.	50	
Elgin and Havelock.	From Elgin, County of Albert, N.B., to Petitcodiac Junction with Intercolonial Railway; thence to Havelock, in County of King's.		27 00
Erie and Huron.	Rondeau, Lake Erie, Ont., to Sarnia, passing through the town of Chatham, Ont., connects with Canada Southern and Great Western and Lake Erie and Detroit River Railways.		76 75
Esquimalt and Nanaimo.	Victoria to Wellington, Island of Vancouver.		78 00
Fredericton and St. Mary's Railway Bridge.	Over the St. John River, connecting the Fredericton Railway, at Fredericton, with the New Brunswick Railway and Canada Eastern Railway at St. Mary's		1 33
Grand Trunk (owned)— Main Line.	From Point Edward to Point Lévis and Boundary Line, Vermont.	719 33	948 65
	From Niagara Falls to Windsor.	229 32	
Branches.	Connections at Toronto with G.W. and N., and N.W.	4 75	
	Montreal to Dorval.	10 12	
	Sarnia Extension—Point Edward to Sarnia	3 13	
	Montreal Landing to Wharfs.	0 83	
	Arthabaska to Doucet's Landing	35 34	
	Kingston—Main Line to Kingston City.	2 25	
	Waterloo and Berlin to Galt.	14 85	
	St. Mary's to London.	22 00	
	St. Lambert to Boundary Line, N.Y., and St. Isidore to Province Line.	65 50	
	Blackwell to St. Clair Tunnel.	5 00	
	Port Dover to Warton, Durham and Port Rowan.	189 75	
	Brosseaus to Dundee and Valleyfield.	81 14	
	Jacques Cartier to Canadian Pacific Junction.	6 54	
	Waterloo to Elmira.	10 17	
	Belleville to Midland.	163 96	
	Lindsay to Scarboro' Junction.	60 35	
	do Haliburton.	54 20	
	Whitby to Manilla.	33 73	
	Lakefield Junction to Lakefield.	11 66	
	North Hastings Junction to Eldorado.	22 21	
	Blackwater to Coboconk.	36 35	
	Port Hope to Omeme.	32 05	
	Millbrook to Peterboro'.	12 35	
Stouffville to Lake Simcoe.	26 46		
Peterboro' to Chemong Lake.	8 22		
Coldwater to end of track.	1 50		
Connection, Merriton.	0 17		
do Stony Creek.	2 08		

# Department of Railways and Canals.

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Grand Trunk— Branches— <i>Con.</i>	Loop Gages (N. and N.W. Divn.).....	0 48	
	Hamilton to Toronto.....	36 64	
	Loop Junction Cut Branch.....	0 36	
	Connection, Burlington Branch, East.....	0 13	
	do do do West.....	0 21	
	Harrisburg to Guelph.....	27 18	
	Connection do (W. G. and B.).....	0 11	
	Harrisburg to Brantford.....	7 76	
	Brantford Branch Junction with G.T.....	0 13	
	Komoka to Sarnia.....	50 85	
	Wyoming to Petrolia.....	4 71	
	Fort Erie to Glencoe.....	145 55	
	Connection, Welland Junction, East.....	0 26	
	do do West.....	0 50	
	do Canfield Junction.....	0 19	
	do Simcoe (G. B. & L. E.).....	0 24	
	East Y. St. Thomas.....	0 32	
	Allanburg to Clifton Junction.....	8 33	
	Port Colborne to Port Dalhousie.....	25 14	
	Glencoe to Kingscourt Junction.....	21 04	
	Guelph to Southampton.....	101 26	
	Palmer-ton to Kincardine.....	66 67	
	do connection.....	0 20	
	Hyde Park to Wingham Junction.....	68 88	
	Connection, Clinton Junction.....	0 13	
	Brantford Loop Line.....	34 78	
	Toronto Belt Line, Swansea to Carleton.....	4 37	
	do Don to Fairbank Junction.....	8 33	
	Toronto to Gravenhurst.....	111 60	
	Allandale to Collingwood.....	31 76	
	Hamilton to Allandale.....	93 89	
	do to Port Dover.....	40 25	
	Collingwood to Meaford.....	20 50	
	Elmvale to Hillsdale.....	8 28	
	Beeton Junction to Collingwood.....	39 83	
	Gravenhurst to Nipissing Junction with C.P.R.....	111 37	
	Colwell to Penetanguishene.....	33 34	
	Park Head to Owen Sound.....	12 42	
	Cobourg to Harwood.....	15 00	
			2,049 58
	Total owned.....		2,998 23
	Leased and partly owned—		
	Buffalo and Lake Huron, Fort Erie to Goderich.....		162 00
	Leased or rented—		
	Wharf Branch, Montreal.....		1 75
	Total miles in Grand Trunk system.....		3,161 98
St. Clair Tunnel and approaches.	Under the St. Clair River, between Sarnia and Port Huron—connecting the Grand Trunk Railway with railroads in State of Michigan..... (Length of tunnel between portals 6,000 ft., cylindrical in section with clear inside diameter of 19 ft. 10 inches.)		2 23
Great Eastern.....	Constructed from junction with South-eastern Railway at Yamaska to River St. Francis..... Constructed from Nicolet to Junction with Grand Trunk Railway at St. Grégoire.....	6 00 7 00	
Great Northern.....	From St. Jérôme to Montcalm.....		13 00
Great North-west Central.....	From junction with C.P.R. at Chater, westward to Hamiota.....		28 00
			50 93

TABLE showing Location of Railways, &amp;c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Hereford.....	From International Boundary to Dudswell, County Wolfe, connects with Canadian Pacific Railway at Cookshire, Maine Central at International boundary, and with Quebec Central at Dudswell. ....	48 43	
	Dudswell to Lime Quarries (Dominion Lime Company) .....	4 57	53 00
Irondale, Bancroft and Ottawa ..	From junction with Grand Trunk Railway near Kinmount Station, to Wilberforce.....		30 00
Joggins, now Canada Coals and Railway Co.....	Maccan Station, I.C.R., to Joggins Mine .....		12 00
Kent Northern.....	Richibucto, N.B., to Intercolonial Railway.....	27 00	
St. Louis and Richibucto.....	Richibucto to St. Louis.....	7 00	34 00
Kingston and Pembroke.....	Main Line—Kingston to Pembroke .....	103 10	
	Glendon Branch—Bedford to Zanesville Mine.....	4 00	
	Robertsville Branch—To Robertsville Mines.....	1 00	
	Branches—To Doran's Mills, Charcoal Works, McLaren's Mills, Bethune's Mines, Lavant Mills, Clyde Forks Mills and Francis Mills .....	4 75	112 85
	(Connects with Grand Trunk at Kingston, Canadian Pacific at Sharbot Lake and at Renfrew.)		
Kingston, Napanee and Western.	Late Napanee, Tamworth and Quebec :—		
	Napanee to Tamworth .....	28 50	
	Yarker to Harrowsmith .....	7 00	
	Tamworth to Tweed .....	20 95	
	Harrowsmith to Sydenham.....	4 37	60 82
Lotbinière and Mégantic.....	Lyster Station, Grand Trunk, to Ste. Philomène .....		23 34
L'Assomption.....	L'Épiphanie Station, C.P.R., to L'Assomption. ..		3 00
Lake Erie, Essex and Detroit River.....	From Walkerville, Ont., to Ridgetown .....	84 05	
	Branch—Foster's to Decew's Mills.....	4 00	
Lake Temiscamingue Colonization Railway.....	Mattawa to Lakes Temiscamingue and Kippewa.....		88 05
London and Port Stanley.....	London to Port Stanley on Lake Erie.....		45 84
Lower Laurentian (formerly St. Lawrence, Lower Laurentian and Saguenay).....	London to Port Stanley on Lake Erie.....		23 75
Manitoba and North-western...	From St. Tite, on C.P.R., to Rivière à Pierre, on Quebec and Lake St. John Railway .....		39 50
	Portage la Prairie to Yorkton .....	223 05	
	Shell River Branch—Binscarth to Russell.....	11 45	
	Leased—Saskatchewan and Western—Minnedosa to Rapid City.....	15 47	249 97
Manitoba and South-eastern.....	From Winnipeg south-easterly to west side of Lake of the Woods; 8 miles under construction .....		
Montfort Colonization. ....	From junction with Montreal and Western near St. Sauveur to Montfort, and westward .....		21 00
Massawippi Valley.....	From Lennoxville to Vermont boundary, there connecting with Connecticut and Passumpsic Rivers Railway; also connects with Grand Trunk and C.P.R. at Lennoxville.....	32 00	
	Branch—Stanstead Junction to Stanstead.....	2 00	34 00
Montreal and Vermont Junction.	From Junction with Stanstead, Shefford and Chambly Railway, 2½ miles east of St. Johns, P.Q., to Junction with Vermont and Canada Railway, at Vermont boundary; also connects at Stanbridge with Lake Champlain and St. Lawrence Junction Railway.....		23 60
Montreal, Portland and Boston..	Junction with Grand Trunk at St. Lambert to Farnham.....	32 00	
	Marieville to St. Césaire.....	8 60	40 60

# Department of Railways and Canals.

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Montreal and Atlantic (formerly South-eastern) . . . . .	Main Line—West Farnham to Richford on International Boundary . . . . .	33 80	
	Northern Division—Sutton Junction to Sorel . . . . .	95 50	
	Between Newport and Richford—Part of line in Canada . . . . .	10 80	
		140 10	
	Leased—Lake Champlain and St Lawrence Junction—Stanbridge to St. Guillaume . . . . .	61 40	201 50
	(Connects with Connecticut and Passumpsic, Grand Trunk and Stanstead, Shefford and Chambly Rys.)		
Montreal Park and Island (electric) Nelson and Fort Sheppard . . . . .	Suburbs of city of Montreal . . . . .		22 03
	From West Arm of Kootenay Lake, near Nelson, to Fort Sheppard on International boundary, B.C. . . . .		55 00
New Glasgow Iron, Coal and Railway Company . . . . .	From Ferrona Junction, I.C.R., to Sunny Brae . . . . .		12 50
New Brunswick and Prince Edward Island . . . . .	From Sackville Station, Intercolonial Railway, to Cape Tormentine . . . . .		36 00
Niagara Falls Park and River Electric Railway . . . . .	Queenston to Chippewa . . . . .		13 68
Northern Pacific and Manitoba . . . . .	Winnipeg to International boundary . . . . .	65 94	
	Winnipeg to Portage la Prairie . . . . .	52 64	
	Morris to Brandon . . . . .	145 82	
	Connection with C.P.R. at Winnipeg . . . . .	1 24	
		265 64	
Nosbonsing and Nipissing . . . . .	From Lake Nosbonsing to Lake Nipissing . . . . .		5 50
Nova Scotia Central . . . . .	From Middleton on the Windsor and Annapolis Railway, to town of Lunenburg, on the Atlantic coast, N.S. . . . .		74 00
Orford Mountain . . . . .	Eastman, on C. P. R., to Kingsbury, Que. . . . .		26 50
Ottawa and Gatineau . . . . .	Canadian Pacific Railway Junction at Hull, Que., to Wright, Pickanock River . . . . .		54 60
Ottawa, Arnprior and Parry Sound . . . . .	Ottawa to Whitney . . . . .		144 00
Ottawa Valley . . . . .	Lachute, on C. P. R., to St. Andrews on Ottawa River . . . . .		7 00
Parry Sound Colonization . . . . .	From Scotia, on Northern and Pacific Junction Railway to Rankins . . . . .		40 00
Philipsburg . . . . .	Standbridge Station of Canadian Pacific and Central Vermont Railways, to Philipsburg . . . . .		6 75
Pontiac and Renfrew . . . . .	From Wyman's Station, on Pontiac Pacific Junction Railway, to Bristol Iron Mines, County Pontiac, Que . . . . .		4 25
Pontiac Pacific Junction . . . . .	From Junction with Canadian Pacific Railway at Aylmer, Que., to Waltham . . . . .		70 60
Port Arthur, Duluth and Western . . . . .	Port Arthur to Gunflint Lake on Minnesota boundary (Connects with C. P. R. at Port Arthur and Fort William.) . . . . .		85 50
Qu'Appelle, Long Lake and Saskatchewan . . . . .	From Canadian Pacific Railway at Regina, north-westerly to Long Lake and Prince Albert . . . . .		253 96
Quebec and Lake St. John . . . . .	Quebec to Roberval . . . . .	191 00	
	Chambord Junction to Chicoutimi . . . . .	51 00	
		242 00	
Quebec Central . . . . .	Main Line—Sherbrooke to Harlaka Junction, Intercolonial Railway, 5 miles from Lévis, Que . . . . .	137 50	
	Chaudière Branch, Beauce Junction to St. Francis . . . . .	15 00	
	Angus Branch—East Angus to Angus Mills . . . . .	1 00	
		153 50	
	(Connects with Grand Trunk, Canadian Pacific and Boston and Maine Rys. at Sherbrooke.)		
Quebec, Montmorency and Charlevoix . . . . .	Hedleyville, Parish of St. Roch, Quebec, to Cap Tourmente . . . . .		30 00

TABLE showing Location of Railways, &c.—*Concluded.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Stanstead, Shefford and Chambly	From Junction with Montreal and Vermont Junction Railway, near St. Johns, Que., easterly to Waterloo.	.....	43' 00
Shore Line (formerly Grand Southern)	St. John to St. Stephen, N.B.	.....	82' 50
Stewiacke Valley and Lansdowne	Graham's Siding, Intercolonial Railway, to Upper Stewiacke, thence to Lansdowne (10 miles under construction).	.....	
St. Catharines and Niagara Central	St. Catharines, Ont., to Niagara Falls.	.....	12' 35
St. John Bridge and Railway Extension	From St. John to Fairville, crossing St. John River at the Falls by a cantilever steel bridge, and connects Intercolonial Railway with New Brunswick Railway, C.P.R., included in Canadian Pacific System.	.....	1' 75
St. John Valley and Rivière du Loup	From Fredericton, N.B., to Woodstock, N.B. (6 miles under construction).	.....	
Salisbury and Harvey (formerly Albert Railway)	Salisbury to Albert, N.B.	45' 00	
	Coverdale to Wright's Mill	1' 00	
	Hillsborough to Gray's Island	1' 00	
	Albert to Prescott's Mill	1' 00	
	Stony Creek to Manganese Mine	1' 25	
		.....	49' 25
Harvey Branch	Albert to Harvey Bank, N.B.	.....	3' 00
St. Lawrence and Adirondack	From Junction with Canada Atlantic near Valleyfield to International Boundary.	.....	20' 31
South Shore (formerly Montreal and Sorel)	From Junction with Grand Trunk at St. Lambert to Armstrong, opposite Sorel.	.....	44' 67
Sydney and Louisbourg (Dominion Coal Co)	Sydney Harbour to Louisbourg Harbour	39' 15	
	Branches to coal Mines	25' 75	
		.....	64' 90
Thousand Islands	Gananoque to Gananoque Station, G.T.R.	.....	4' 33
Témiscouata	Rivière du Loup, Que., on Intercolonial, to Edmundston, N.B., on the New Brunswick Railway	81' 00	
	Branch—Edmundston to Connors, on St. John River.	32' 00	
		.....	113' 00
Toronto, Hamilton and Buffalo, including Brantford, Waterloo and Lake Erie	Waterford Junction with Canada Southern Railway to West Brantford	17' 00	
	West Brantford to City of Hamilton	25' 66	
		.....	42' 66
United Counties	Iberville Junction with Canadian Pacific Railway to St. Hyacinthe, thence to St. Robert Junction with Montreal and Atlantic, 4½ miles from Sorel	.....	61' 00
Victoria and Sidney	City of Victoria to Sidney, Vancouver Island	.....	16' 26
Dominion Atlantic, embracing Windsor and Annapolis and Yarmouth and Annapolis Rys.	Windsor to Annapolis, N.S.	84' 00	
	Annapolis to Yarmouth	87' 00	
	Branches—		
	Wilnot to Forbrook	3' 50	
	From Kentville to Kingsport, on Basin of Minas (formerly Cornwallis Valley Railway)	14' 00	
	Windsor Branch of I.C.R.—Windsor to Windsor Junc., Intercolonial Railway, 14 miles from Halifax	32' 00	
		.....	220' 50
Winnipeg and Hudson Bay, now Winnipeg Great Northern	Winnipeg to Port Nelson on Hudson Bay	.....	
	(Constructed 40 miles, Winnipeg to St. Laurent on Lake Manitoba)	.....	40' 00
Wood Mountain and Qu'Appelle	From Canadian Pacific Railway, near Qu'Appelle Station, to Fort Qu'Appelle, thence north-easterly (17 miles under construction.)	.....	







Department of Railways and Canals.

## SUMMARY STATEMENTS

RELATING TO MILEAGE, CHARACTERISTICS OF ROADS, ROLLING  
STOCK, OPERATIONS, PASSENGERS AND FREIGHT CAR-  
RIED, EARNINGS, OPERATING EXPENSES  
AND ACCIDENTS.

No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed. (Rails laid.)	Under Construc- tion.	Iron Rails.			Iron Rails.	Steel Rails.
				Miles.	Miles.			
1	Alberta Railway and Coal Co. ....	64 62			64 62	4 50	30 & 35	
2	Albert Southern .....	16 00			16 00	48	56	
3	Baie des Chaleurs .....	80 00			80 00	1 36	56	
4	Bay of Quinté Railway and Navi- gation Co. .... 4 00 } Kingston, Napanee & Western 60 82 }	64 82			64 82	7 00	50 & 56	
5	Brockville, Westport & Sault Ste. Marie.	45 00			45 00	1 80	56	
6	Buctouche and Moncton .....	32 00			32 00	2 00	56	
7	Calgary and Edmonton .....	295 07			295 07	9 38	56	
8	Canada Atlantic .....	138 00			138 00	43 00	56 & 72	
	Central Counties .....	21 00			21 00	2 00	56	
9	Canada Eastern .....	136 00	17 00		136 00	6 00	56½ & 60	
10	aCanada Southern .....	381 06			381 06	157 96	80, 65, 60	
	Canadian Government Railways—							
11	bIntercolonial (including Dartmouth ) Branch, 4 miles) .....	1140 00			1140 00	152 50	56, 57½, 67	
12	Prince Edward Island .....	210 60		109 60	101 00	15 71	38 50 & 52	
13	cCanadian Pacific Railway .. \$4049 50							
	Leased lines—							
	Atlantic and North-west ... 205 00							
	Columbia and Kootenay ... 27 70							
	Credit Valley .....	175 10						
	Manitoba South-western Colonization .....	217 80						
	Toronto, Grey and Bruce .. 191 30							
	Ontario and Quebec .....	469 00						
	Western Ontario Pacific ... 26 60							
	St. Lawrence and Ottawa ... 58 40							
	Fredericton .....	22 10						
	New Brunswick .....	173 95						
	New Brunswick and Canada St. John Bridge and Rail- way Extension .....	1 75						
	St. John and Maine .....	91 80						
	Alberta Railway (Dunmore to Lethbridge) .....	109 50						
	Nakusp and Slocan .....	36 90						
	Tobique Valley .....	28 00						
	Shuswap and Okanagan ... 51 00							
	Montreal and Ottawa .....	23 60						
	dMontreal and Western ... 70 00							
	Montreal and Lake Maskin- ongé .....	12 90						
	Guelph Junction .....	15 00						
14	Lake Temiscamingue Colonization .....	45 84	1 36		45 84	8 00	56 & 60	
15	Caraguet .....	68 00			68 00	3 25	50	
16	Carillon and Grenville .....	13 00		13 00		0 25	65	
17	Coast Line, N.S. ....		25 00					
18	Central Ontario .....	104 00			104 00		42 56	
19	Central of New Brunswick .....	75 00			75 00	2 50	52 & 56	
20	eCumberland Railway and Coal Co. (in- cluding Springhill and Oxford Branch, 14 miles) .....	46 00			46 00	10 50	56 & 67	
21	Drummond County .....	90 53			90 53	5 00	56 & 60	
22	Elgin and Havelock .....	27 00			27 00	2 00	56	

a 95 21 miles double track. b 1 50 miles double track. Dartmouth Branch, 4 miles not in operation.  
 c 13 20 miles double track. d 3 10 miles, from 66 90 to 70 miles of Montreal and Western, not in operation.  
 e Springhill and Oxford Branch, 14 miles, not in operation.

# Department of Railways and Canals

Roads, &c., for the Year ended 30th June, 1895.

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		No. of Level Crossings	No. of Overhead Bridges.	Height of Overhead Bridges above rail level.	No. Level Crossings of other Railways.	No. of Junctions with other Railways.	No. of Junctions with branch lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.		Gauge of Railway.	
		Guarded.	Not Guarded.								Ft.	Inches	Ft.	Inches
2640	Plain fishplates.....		2					2		573	53	3		1
2640	do .....		11					2		955	120	4	8½	2
2640	do .....		25	3	22			1		717	67	4	8½	3
3000	Plain and angle fishplates.....		50				1	4		400	90	4	8½	4
2640	Fisher bridge joint.....		35					2		717	58	4	8½	5
2640	Plain fishplates.....		16				1	1		955	74	4	8½	6
2600	Angle and plain fishplates.....		148					2		1146	53	4	8½	7
3000	do do .....	6	86	3	22	6	4	1		2865	40	4	8½	
2640	Plain fishplates.....		20				1	1		955	53	4	8½	8
2640	Plain and angle fishplates.....	1	35				1	4	1	955	80	4	8½	9
2800	Joint splice, 4 and 6 bolts, nut locks ..	8	382	16	19	17	16	6		913	75	4	8½	10
2640	Angle fishplates.....	9	429	29	18½ to 35	6	24	20		694	65	4	8½	11
2640	Plain and angle fishplates.....		956	2	17½					396	90	3	6	12
2640 to 3168	Plain and angle fishplates.....	10	33	3211	67	20½ to 24	48	62	53	441	f237	4	8½	13
2640	Plain and angle fishplates.....		2		2	21' 5"		1		573	106	4	8½	14
2600	Plain fishplates.....		12					1		1000	60	4	8½	15
1760	Chairs.....	1	8	1	17					1910	100	5	6	16
2640	Plain fishplates.....		94				3	4		955	105	4	8½	17
2640	do .....		40					2		716	74	4	8½	18
2600	do .....		17				1	3		820	160	4	8½	20
2640	Plain and angle fishplates.....		46				2	4	2	717	66	4	8½	21
2000	Plain fishplates.....		24				1	1		717	90	4	8½	22

f Temporary. g In branches.  
 § 10 miles of Revelstoke Branch not returned as under tariff.

## No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed (Rails laid.)	Under Construc- tion.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.			
23	Erie and Huron .....	76 75			76 75	4 80		54 & 56
24	Esquimalt and Nanaimo .....	78 00			78 00	2 00		50 & 54
25	Fredericton and St. Mary's Railway and Bridge Co .....	1 33			1 33	12		56
26 a	Grand Trunk .....	884 25						
	Great Western .....	561 80						
	Brantford, Norfolk and Port Burwell .....	34 78						
	Buffalo and Lake Huron .....	162 00						
	Grand Trunk, Georgian Bay and Lake Erie .....	172 75						
	Owen Sound Branch .....	12 42						
	London, Huron and Bruce .....	69 01						
	Waterloo Junction .....	10 25						
	South Norfolk .....	17 00						
	Wellington, Grey and Bruce .....	168 13						
	Northern .....	172 10						
	North Simcoe .....	33 34						
	Hamilton and North-western .....	173 90	3161 98	51 78	3110 20	662 25	56 to 65	56 to 79
	Northern & Pacific Junction .....	111 37						
	Toronto Belt Line .....	12 70						
	Midland .....	166 73						
	Grand Junction .....	85 40						
	Toronto and Nipissing .....	85 00						
	Lake Simcoe Junction .....	26 50						
	Victoria .....	53 25						
	Whitby, Port Perry and Lindsay .....	46 50						
	Cobourg, Blairton and Mar- mora .....	15 00						
	Jacques Cartier Union .....	6 50						
	Montreal and Champlain Junction .....	61 75						
	Beauharnois Junction .....	19 50						
27 b	Great Eastern .....	13 00	15 00		13 00	1 00		56
28	Great Northern .....	28 00	10 00		28 00	2 00		56
29	Great North-west Central .....	50 93			50 93	1 99		56
30	Hereford .....	53 00			53 00	5 51		56
31	Irondale, Bancroft and Ottawa .....	30 00	10 00		30 00	1 50		56
32	Joggins, now Canada Coals and Ry. Co. .....	12 00			12 00	2 00		56
33	Kent Northern, including St. Louis and Richibucto .....	34 00		3 50	30 50	3 00	67	56
34	Kingston and Pembroke .....	112 85		9 75	103 10	21 00	50 to 84	56
35	L'Assomption .....	3 00			3 00	25		56
36	Lake Erie and Detroit River .. 88 05 } London and Port Stanley .....	23 75 } 111 80			111 80	14 00		56 & 67
37	Lotbinière and Megantic .....	23 34	2 00		23 34	50		56
38	Lower Laurentian .....	39 50			39 50	2 50		56
39	Manitoba and North-western .. 234 50 } Saskatchewan and Western .. 15 47 }	249 97 } 249 97			249 97	23 75		56
40	Manitoba and South-eastern .....		8 00					
41	Massawippi Valley .....	34 00			34 00	2 50		50 & 60
42	Montford Colonization .....	21 00			21 00	20		56
43	Montreal and Atlantic, form- erly South-eastern .....	140 10 } 201 50		36 00	165 50	23 80	35 & 56	50, 60 & 72
	Lake Champlain and St. Law- rence Junction .....	61 40 }						

a 404 58 miles double track.

b Not in operation.



# Department of Railways and Canals.

Roads, &c., for the Year ended 30th June, 1895—Continued.

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		No. of Level crossings	No. of Overhead Bridges.		Height of Overhead Bridges above rail level.	No. Level Crossings of other Railways.	No. of Junctions with other Railways.	No. of Junctions with branch lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	Number.
		Guarded.	Not guarded.		No. of Overhead Bridges.	Feet.								
2640	Plain fishplates.....			111				5	6		661	52 4 8 <sup>1</sup> / <sub>2</sub>	23	
2992	Angle fishplates.....			15	2		23				573	80 4 8 <sup>1</sup> / <sub>2</sub>	24	
2564	do.....			6					2		1433	50 4 8 <sup>1</sup> / <sub>2</sub>	25	
2640	Plain and angle fishplates.....	11	83	2736	238	15 1/2 to 26' 8"		65	71	104	1100 600	53 4 8 <sup>1</sup> / <sub>2</sub>	26	
2640	Plain fishplates.....			6				1	2		2865	26 4 8 <sup>1</sup> / <sub>2</sub>	27	
2640	Plain and angle fishplates.....			21				2			2292	53 4 8 <sup>1</sup> / <sub>2</sub>	28	
2640	Plain fishplates.....	5		24				1			955	60 4 8 <sup>1</sup> / <sub>2</sub>	29	
2800	do.....			28				2	3		955	66 4 8 <sup>1</sup> / <sub>2</sub>	30	
2640	do.....			10				1			1000	60 4 8 <sup>1</sup> / <sub>2</sub>	31	
3000	do.....			7				1	1	1	955	79 4 8 <sup>1</sup> / <sub>2</sub>	32	
2432	do.....			10				1	1		1000	60 4 8 <sup>1</sup> / <sub>2</sub>	33	
2640	Plain and angle fishplates.....			56	3	16 & 21 1/2		6	6	13	955	79 4 8 <sup>1</sup> / <sub>2</sub>	34	
2500	Plain fishplates.....			1				1			955	20 4 8 <sup>1</sup> / <sub>2</sub>	35	
2700	Plain and angle fishplates.....	2		125	6	19 1/2		7	8		1483 716	53 4 8 <sup>1</sup> / <sub>2</sub>	36	
2600	Plain fishplates.....			1				1			819	52 4 8 <sup>1</sup> / <sub>2</sub>	37	
2640	do.....			25				2	1		917	105 4 8 <sup>1</sup> / <sub>2</sub>	38	
2700	Plain and angle fishplates.....	26		180				2	2		955	105 4 8 <sup>1</sup> / <sub>2</sub>	39	
2800	Plain fishplates.....			1	20	1	19	1	2	1	478	76 4 8 <sup>1</sup> / <sub>2</sub>	40	
2620	do.....			14	1		20	1			572	168 3 60	42	
2640	Plain and angle fishplates.....			205	2	19' 6"		8	7	3	522	83 4 8 <sup>1</sup> / <sub>2</sub>	45	

c Branch lines.

No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line				Length of Siding.	Weight per Yard.	
		Completed. (Rails laid.)	Under Construc- tion.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.			
44	aMontreal Park and Island (Electric)...	22' 03			22' 03	.98		56
45	Montreal and Vermont Junction .....	23' 60			23' 60	2' 00		60 & 72
46	Montreal, Portland and Boston.....	40' 60			40' 60	1' 40		56
47	Nelson and Fort Sheppard.....	55' 00	5' 00		55' 00	1' 70		56
48	New Brunswick & Prince Edward Island	36' 00			36' 00	1' 50		56
49	New Glasgow Iron, Coal and Railway Co. (now Nova Scotia Steel Co.).....	12' 50			12' 50	3' 00		56
50	bNiagara Falls Park and River (Electric Railway).....	13' 68			13' 68	.89		56
51	Northern Pacific and Manitoba.....	265' 64			265' 64	29' 85		56
52	Nosbonsing and Nipissing.....	5' 50			5' 50	1' 25		56
53	Nova Scotia Central.....	74' 00			74' 00	2' 75		56
54	Nova Scotia Southern.....		10' 00					
55	Orford Mountain.....	26' 50			26' 50	1' 00		56
56	Ottawa, Arnprior and Parry Sound.....	144' 00	15' 00		144' 00	11' 00		72
57	Ottawa and Gatineau.....	54' 60	6' 20		54' 60	2' 00		56
58	Ottawa Valley.....	7' 00			7' 00	.20		56
59	Parry Sound Colonization.....	40' 00	8' 60		40' 00	5' 00		56 & 72
60	Philipsburg Ry. and Quarry Co.....	6' 75			6' 75			56
61	cPontiac and Renfrew.....	4' 25			4' 25	.75		56
62	Pontiac Pacific Junction.....	70' 60			70' 60	3' 50		56
63	Port Arthur, Duluth and Western.....	85' 50			85' 50	4' 00		56
64	Qu'Appelle, Long Lake & Saskatchewan.	253' 96			253' 96	6' 86		56
65	Quebec Central.....	153' 50	59' 36	1' 00	152' 50	9' 75		56 & 70
66	Quebec and Lake St. John.....	242' 00			242' 00	14' 00		56 & 60
67	Quebec, Montmorency and Charlevoix.....	30' 00			30' 00	2' 00		56
68	Salisbury and Harvey.....	49' 25		45' 00	4' 25	1' 00	60	56
69	Harvey Branch.....	3' 00			3' 00	.25		56
70	Shore Line.....	82' 50			82' 50	2' 50		50
71	Stanstead, Shefford and Chambly.....	43' 00		29' 00	14' 00	2' 00		60
72	St. Catharines and Niagara Central.....	12' 35			12' 35	1' 00		56
73	dSt. Clair Tunnel Yard and Approach.....	2' 23			2' 23	11' 00		100
74	St. John Valley and Riviere du Loup.....		6' 00					
75	St. Lawrence and Adirondack.....	20' 31			20' 31	.90		72
76	Stewiacke Valley and Lansdowne.....		10' 00					80
77	Sydney & Louisbourg (Dominion Coal Co.)	64' 90		10' 13	54' 77	27' 00	50	56 & 80
78	South Shore (formerly Montreal and Sorel).....	44' 67			44' 67			56
79	Temiscouata.....	113' 00			113' 00	5' 00		56
80	Thousand Islands.....	4' 33			4' 33			56
81	fToronto, Hamilton and Buffalo (formerly Brantford, Waterloo and Lake Erie)...	42' 66			42' 66	.75		56 & 70
82	United Counties.....	61' 00			61' 00	3' 50		56
83	Victoria and Sydney, B.C.....	16' 26			16' 26	1' 20		50
84	Dominion Atlantic, comprising— Windsor and Annapolis..... 37' 50 Cornwallis Valley..... 14' 00 Yarmouth and Annapolis..... 87' 00 Windsor Branch, Inter- colonial..... 32' 00	220' 50		16' 50	204' 00	10' 50	67	56 to 60
85	eWinnipeg Great Northern (formerly Winnipeg and Hudson Bay).....	40' 00			40' 00	2' 00		56
86	Wood Mountain and Qu'Appelle.....		17' 00					
		16090' 76	224' 92	346' 06	15744' 70	2054' 39		

a 7' 6) m miles double track.    b 11' 43 miles double track.    c Not in operation.    d Length of Tunnel, 6,000 ft.; inside diameter, 19 ft. 10 in.    e Not in operation.    f 25' 66 miles, Brantford to Hamilton not returned as under traffic.



# Department of Railways and Canals

Roads, &c., for the Year ended 30th June, 1895—*Concluded.*

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		No. of Level crossings.	No. of Overhead Bridges.		Height of Overhead Bridges above rail level.	No. Level Crossings of other Railways.	No. of Junctions with other Railways.	No. of Junctions with branch lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.		Gauge of Railway.	
		Guarded.	Not guarded.		No. of Overhead Bridges.	Feet.						Feet.	Number.		
2600	Plain and angle fishplates	1	13					1	2		40	290	4	8½	44
3000	Plain fishplates		51					2	1			52	4	8½	45
3000	do and chairs		21					3	1	2		4	8½	46	
2640	Angle bars										478	132	4	8½	47
2400	Plain fishplates		26					1			1000	66	4	8½	48
2640	Angle bars		5						1	1	955	79	4	8½	49
2610	do	1	16	2	14 & 22			2	1		115	300	4	8½	50
2600	do	1	257					6	2	3	573	63	4	8½	51
2600	Plain fishplates		1					1	1		955	132	4	8½	52
2640	Angle bars		23	1	21				1		819	80	4	8½	53
															54
2640	Plain fishplates		17						1		955	74	4	8½	55
2640	Angle bars		44					2	2		955	66	4	8½	56
2640	Plain and angle plates		42						1		573	106	4	8½	57
2600	Plain fish plates		3						1		1146	60	4	8½	58
2640	Plain and angle fishplates		10						1		955	66	4	8½	59
2640	Plain fishplates		3						1	1	955	52	4	8½	60
2640	do									1	717	106	4	8½	61
2640	Angle bars		52						1		1146	53	4	8½	62
2640	Plain fishplates		5					3	1		573	95	4	8½	63
2640	Angle bars		51						1		1146	65	4	8½	64
2640	Plain fishplates		26					2	5	1	882	76	4	8½	65
2640	Plain and angle fishplates	1	2	56					3	2	717	105	4	8½	66
2640	do		1	10	1	22			1		1433	42	4	8½	67
2600	Plain fishplates		30	1		15			1		717	80	4	8½	68
2640	do		2						2		717	53	4	8½	69
2992	do		15	5	23	3					573	85	4	8½	70
2640	do		42	1	18	3	4				717	60	4	8½	71
2640	do		20	3	22	2	2				717	79	4	8½	72
	Angle bars														73
															74
2640	Angle bars		15					1	2		1433	53	4	8½	75
															76
2640	Angle bars		26	2	18		1	7			1433	70	4	8½	77
2640	Plain fishplates		15					1			2292	53	4	8½	78
2640	Plain and angle fishplates		38					1	2		819	79	4	8½	79
3000	Angle bars		8						1		660	84	4	8½	80
2700	Plain and angle plates		18	1	20		2				955	40	4	8½	81
2640	Plain fishplates		43				4	5			717	52	4	8½	82
2464	do		13	1							637	105	4	8½	83
															84
2640	Plain and angle plates	1	157	4	24 & 32		3	2			637	79	4	8½	84
															85
2640	Plain fishplates		6					1			2865	31	4	8½	85
															86
		53	151	10430	398			218	316	232					

## No. 3.—SUMMARY STATEMENT of the different descriptions of

Number.	Name of Railway.	Length of Line.		Number of Engines.		Number of Sleeping Cars.		Number of Palace or Drawing Room Cars.	
		Completed.	Under Construction.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.
		Miles.	Miles.						
1	Alberta Railway and Coal Co. ....	64 62		17					
2	Albert Southern .....	16 00		1					
3	Baie des Chaleurs .....	80 00		5					
4	Bay of Quinté Railway and Navigation Co. . . . . 4 00 Kingston, Napanee and Western . . . . . 60 82	64 82		5					
5	Brockville, Westport and Sault Ste. Marie .....	45 00		2					
6	Buctouche and Moncton .....	32 00		2					
7	Calgary and Edmonton .....	295 07							
8	Canada Atlantic .....	138 00							
	Central Counties .....	21 00	17 00	24	5				
9	Canada Eastern .....	136 00		9					
10	Canada Southern .....	381 06		129	7	\$26	*2		
Canadian Government Railways—									
11	Intercolonial, including Dartmouth Branch, 4 miles.	1,140 00		204		15		5	
12	Prince Edward Island .....	210 60		20					
13	Canadian Pacific Railway .....	4049 50							
	Leased lines—								
	Atlantic and North-west .....	205 00							
	Columbia and Kootenay .....	27 70							
	Credit Valley .....	175 10							
	Manitoba South-western Colonization .....	217 80							
	Toronto, Grey and Bruce .....	191 30							
	Ontario and Quebec .....	469 00							
	West Ontario Pacific .....	26 60							
	St. Lawrence and Ottawa .....	58 40							
	Fredericton .....	22 10							
	New Brunswick .....	173 95							
	St. John Bridge and Railway Extension .....	1 75							
	New Brunswick and Canada .....	117 20							
	St. John and Maine .....	91 80							
	Alberta Ry. (Dunmore to Lethbridge) .....	109 50							
	Tobique Valley .....	28 06							
	Nakusp and Slocan .....	36 90							
	Shuswap and Okanagan .....	51 00							
	Montreal and Ottawa .....	23 60							
	Montreal & Western (3*10 not under traffic) .....	70 00							
	Montreal and Lake Maskinongé .....	12 90							
	Guelph Junction .....	15 00							
14	Lake Teunisamingue Colonization .....	45 84	1 36						
15	Caraguet .....	68 00		2					
16	Carillon and Grenville .....	13 00		3					
17	Coast Line, N.S. .....		25 00						
18	Central Ontario .....	104 00		8					
19	Central of New Brunswick .....	75 00		1	2				
20	Cumberland Ry. & Coal Co., including Springhill and Oxford Branch, 14 miles .....	46 00		8					
21	Drummond County .....	90 53		5	1				
22	Elgin and Havelock .....	27 00		2					
23	Erie and Huron .....	76 75		5					
24	Esquimalt and Nanaimo .....	78 00		5					
25	Fredericton and St. Mary's Railway and Bridge Co. .....	1 33							
26	Grand Trunk .....	884 25							
	Great Western .....	561 80							
	Brantford, Norfolk and Port Burwell .....	34 78							



## No. 3.—SUMMARY STATEMENT of the different descriptions of

Number.	Name of Railway.	Length of Line.		Number of Engines.		Number of Sleeping Cars.		Number of Palace or Drawing Room Cars.	
		Completed.	Under Construction.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.
		Miles.	Miles.						
26	Grand Trunk—Continued.								
	Buffalo and Lake Huron . . . . .	162 00							
	Grand Trunk, Georgian Bay & Lake Erie. . . . .	172 75							
	Owen Sound Branch . . . . .	12 42							
	London, Huron and Bruce . . . . .	69 01							
	Waterloo Junction . . . . .	10 25							
	South Norfolk . . . . .	17 00							
	Wellington, Grey and Bruce . . . . .	168 13							
	Northern . . . . .	172 10							
	North Simcoe . . . . .	33 34							
	Hamilton and North-western . . . . .	173 90	3,161 98	722		*5		6	
	Northern and Pacific Junction . . . . .	111 37							
	Toronto Belt Line . . . . .	12 70							
	Midland . . . . .	166 73							
	Grand Junction . . . . .	85 40							
	Toronto and Nipissing . . . . .	85 00							
	Lake Simcoe Junction . . . . .	26 50							
	Victoria . . . . .	53 25							
	Whitby, Port Perry and Lindsay . . . . .	46 50							
	Cobourg, Blairton and Marmora . . . . .	15 00							
	Jacques Cartier Union . . . . .	6 50							
	Montreal and Champlain Junction . . . . .	61 75							
	Beauharnois Junction . . . . .	19 50							
27	Great Eastern . . . . .		13 00	15 00	1	3			
28	Great Northern . . . . .		28 00	10 00		1			
29	Great North-west Central . . . . .		50 93			2			
30	Hereford . . . . .		53 00			3			
31	Iroquale, Bancroft and Ottawa . . . . .		30 00	10 00	3				
32	Joggins, now Canada Coal and Railway Co. . . . .		12 00		2				
33	Kent Northern, including St. Louis and Richibucto . . . . .		34 00		2	1			
34	Kingston and Pembroke . . . . .		112 85		9				
35	L'Assomption . . . . .		3 00		1				
36	Lake Erie and Detroit River . . . . .	88 05							
	London and Port Stanley . . . . .	23 75	111 80		8				
37	Lotbinière and Megantic . . . . .		23 34	2 00	1				
38	Lower Laurentian . . . . .		39 50		2				
39	Manitoba and North-western . . . . .	234 50	249 97		4	5			
	Saskatchewan and Western . . . . .	15 47							
40	Manitoba and South-eastern . . . . .			8 00					
41	Massawippi Valley . . . . .		34 00			7			
42	Montford Colonization . . . . .		21 00		2				
43	Montreal and Atlantic, formerly South-eastern. . . . .	140 10	201 50		18	2			
	Lake Champlain and St. Lawrence Junction . . . . .	61 40							
44	Montreal Park and Island (Electric) . . . . .		22 03						
45	Montreal and Vermont Junction . . . . .		23 60			9			
46	Montreal, Portland and Boston . . . . .		40 60			2			
47	Nelson and Fort Sheppard . . . . .		55 00	5 00	2				
48	New Brunswick and Prince Edward Island . . . . .		36 00		3				
49	New Glasgow Iron, Coal and Railway Co., now Nova Scotia Steel Co. . . . .		12 50		3				
50	Niagara Falls Park and River Electric Railway . . . . .		13 68						
51	Northern Pacific and Manitoba . . . . .		265 64		9				
52	Nosbonsing and Nipissing . . . . .		5 50		1				
53	Nova Scotia Central . . . . .		74 00		5				
54	Nova Scotia Southern . . . . .			10 00					

# Department of Railways and Canals

Rolling Stock, for the Year ended 30th June, 1895—Continued.

Number of First Class Cars.		Number of Second Class and Emigrant Cars.		Number of Baggage, Mail and Express Cars.		Number of Cattle and Box Freight Cars.		Number of Platform Cars.		Number of Hopper and Dumping Cars.		Remarks.
Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	
+390		225		214		16,014		5,344		1,225		26 * Colonist sleeping cars. † Including 3 dining cars.
	2		1		1				6			27
	2		2		2		12		12			28
	2						50		50			29
	2							21				30
	1	1				1				5		31
	1			2		1		4				32
	5	5		5		22		150				33
	2			1								34
	5	6		3		22		195				35
	1		1			1		1				36
	1	1						30				37
	3	2	3	*4	+4	\$58	109	42	20			38
												39
	5		1		3		250					40
												41
	1	1		1		2		19				42
	13	15		2		427		363		*11		43
	*27	+16						20				44
		12			5							45
		4			1							46
	2		1			1		20				47
	1		1			2		33				48
	1					2		15		*26		49
	*40			1						5		50
	4	5		*9		+286		178				51
								40				52
	4	1		2		13		49				53
												54

No. 3.—SUMMARY STATEMENT of the different descriptions of

Number.	Name of Railway.	Length of Line.		Number of Engines.		Number of Sleeping Cars.		Number of Palace or Drawing Room Cars.	
		Completed.	Under Construction.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.
		Miles.	Miles.						
55	Orford Mountain.....	26 50			2				
56	Ottawa, Arnprior and Parry Sound.....	144 00	15 00	4	8				
57	Ottawa and Gatineau.....	54 60	6 20	2	1				
58	Ottawa Valley.....	7 00		1					
59	Parry Sound Colonization.....	40 00	8 00	3					
60	Philipsburg Railway and Quarry Co.....	6 75		1					
61	Pontiac and Renfrew.....	4 25		1					
62	Pontiac Pacific Junction.....	70 60		4					
63	Port Arthur, Duluth and Western.....	85 50		4					
64	Qu'Appelle, Long Lake and Saskatchewan.....	253 96							
65	Quebec Central.....	153 50	59 36	12					
66	Quebec and Lake St. John.....	242 00		14					
67	Quebec, Montmorency and Charlevoix.....	30 00		4					
68	Salisbury and Harvey.....	49 25		2					
69	Harvey Branch.....	3 00							
70	Shore Line.....	82 50		5					
71	Stanstead, Shefford and Chambly.....	43 00		5					
72	St. Catharines and Niagara Central.....	12 35		2					
73	St. Clair Tunnel Yard and Approach.....	2 23		4					
74	St. John Valley and Rivière du Loup.....		6 00						
75	St. Lawrence and Adirondack.....	20 31		1	5				
76	Stewiacke Valley and Lansdowne.....		10 00						
77	Sydney and Louisbourg (Dominion Coal Co.).....	64 90							
78	South Shore, formerly Montreal and Sorel.....	44 67		4					
79	Temiscouata.....	113 00		5					
80	Thousand Islands.....	4 33		1					
81	Toronto, Hamilton and Buffalo, formerly Brantford, Waterloo and Lake Erie.....	42 66		2					
82	United Counties.....	61 00		4	1				
83	Victoria and Sydney, B.C.....	16 26		2					
84	Dominion Atlantic, comprising—								
	Windsor and Annapolis.....	87 50							
	Cornwallis Valley.....	14 00							
	Yarmouth and Annapolis.....	87 00							
	Windsor Branch of Intercolonial.....	32 00							
85	Winnipeg Great Northern, formerly Winnipeg and Hudson Bay.....	40 00							
86	Wood Mountain and Qu'Appelle.....		17 00						
		16,090 76	224 92	1948	75	114	60	42	

# Department of Railways and Canals.

## Rolling Stock, for the Year ended 30th June, 1895—*Concluded.*

Number of First Class Cars.		Number of Second Class and Emigrant Cars.		Number of Baggage, Mail and Express Cars.		Number of Cattle and Box Freight Cars.		Number of Platform Cars.		Number of Hopper and Dumping Cars.		Remarks.
Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	
	1		1									
5		4		4			39	2				55
9	1	1	1	1				100	154			56.
	1							28				57
								2				58
2				2				32				59
1												60
												61
1		1		1			5	52				62
2		4		2			10	85				63
												64
8		11		10			153	225				65
6	4	9		9			57	234				66
4		18					5	23				67
1				1			7	21				68
												69
5					3		7	61				70
8				2								71
1				1				2				72
										25		73
												74
	10				5		20	100	8			75
		2		1			1	11		610		76
3	1						2	50				77
3		4		2			40	54				78
1								1				79
												80
1		1		2			2	6				81
2				1			6	9	40			82
1				1			3	15				83
15		9		12			113	201		22		84
												85
												86
1011	65	694	8	1129	25	33,577	2783	15,441	317	4,841	4	

\* Including 8 excursion cars; 1 snow plough and 1 flanger owned.

do do

Rolling stock furnished by C. P. R.  
5 snow ploughs, 1 flanger owned.

76 19 engines returned for coal roads in  
Statement No. 9.

## No. 4.—SUMMARY STATEMENT of the Operations of the Year

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.				
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.	
1	Alberta Railway and Coal Co. ....	64 62			24,002	24,002	
2	Albert Southern .....	16 00		2,000	4,000	6,000	
3	Bay of Quinté Navigation Co. .... 4 00 ) Kingston, Napanee & Western. 60 82 )	64 82			129,905	129,905	
4	Baie des Chaleurs. ....	80 00		640	50,256	50,896	
5	Brockville, Westport and Sault Ste. Marie	45 00	881	100	27,405	28,386	
6	Buctouche and Moncton .....	32 00			19,200	19,200	
7	Calgary and Edmonton.....	295 07			67,936	67,936	
8	Canada Atlantic .....	138 00 ) Central Counties. .... 21 00 )	159 00	197,586	220,076	14,137	431,790
9	Canada Eastern .....	136 00	22,340	63,440	99,165	184,945	
10	Canada Southern .....	381 06	1,096,321	1,735,331	147,862	2,979,514	
	Canadian Government Railways—						
11	Intercolonial .....	1,136 00	1,308,720	2,690,522		3,999,242	
12	Prince Edward Island .....	210 60	85,979	144,378		230,357	
13	Canadian Pacific Railway..... 4,039 50 ) Leased Lines—						
	Atlantic and North-west. .... 205 00						
	Ontario and Quebec. .... 469 00						
	Credit Valley..... 175 10						
	West Ontario Pacific..... 26 60						
	Toronto, Grey and Bruce .. 191 30						
	Guelph Junction..... 15 00						
	St. Lawrence and Ottawa .. 58 40						
	Montreal and Ottawa..... 23 60						
	Montreal and Western..... 66 90						
	Montreal and Lake Maski- nongé..... 12 90						
	New Brunswick..... 173 95	6,161 00	5,267,849	5,989,949	1,061,727	12,319,526	
	New Brunswick and Canada 117 20						
	St. John and Maine .....	91 80					
	St. John Bridge and Rail- way Extension .....	1 75					
	Fredericton .....	22 10					
	Manitoba South-western Colonization..... 217 80						
	Columbia and Kootenay... 27 70						
	Nakusp and Slocan..... 36 90						
	Shuswap and Okanagan.... 51 00						
	Alberta Railway, Dunmore to Lethbridge .....	109 50					
	Tobique Valley..... 28 00 )						
14	Lake Temiscamingue Colonization.....	45 84	*	*	*	*	
15	Caraquet.....	68 00			32,000	32,000	
16	Carillon and Grenville .....	13 00	6,000	400		6,400	
17	Central Ontario .....	104 00		15,000	96,000	111,000	
18	Central of New Brunswick ..	75 00			40,800	40,800	
19	Cumberland Railway and Coal Co.	32 00			69,183	69,183	
20	Drummond County .....	90 53	40,700	6,451	42,750	89,901	
21	Elgin and Havelock .....	27 00	16,902			16,902	
22	Erie and Huron .....	76 75	61,377	46,868	47,266	155,511	
23	Esquimalt and Nanaimo .....	78 00	95,190		88,640	183,830	
24	Fredericton & St. Mary's R. & Bridge Co.	1 33					
25	Grand Trunk..... 884 25 ) Great Western .....	561 80					
	Brantford, Norfolk and Port Burwell..... 34 78						
	Buffalo and Lake Huron..... 162 00						
	Grand Trunk, Georgian Bay and Lake Erie..... 172 75						
	Owen Sound Branch..... 12 42						



# Department of Railways and Canals

and Mileage, for the Year ended 30th June, 1895.

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per hour.	Average Rate of Speed of Freight Trains—Miles per hour.	Number.	Remarks.	
49,767	1,098	30,957	.....	14	1	From Lethbridge to Coutts on International Boundary—the portion of this railway from Dunmore to Lethbridge, 109.50 miles, is operated by C. P. R. under lease.	
6,000	1,000	5,170	17	.....	2	Running powers on Grand Trunk Ry., Napanee to Deseronto Junction, 5 miles.	
129,905	55,408	150,913	20	.....	3		
50,896	7,611	3,648	19	15	4		
28,837	26,436	12,411	.....	20	5		
19,200	6,596	16,003	.....	15	6		
71,176	10,281	22,291	.....	19	7		
509,771	165,980	476,303	35	15	8		
192,360	43,386	78,998	30	16	9		
3,782,111	470,062	2,864,673	41	23	10		
4,877,981	1,352,667	1,267,816	25	15	11	Windsor Branch—32 miles operated by Dominion Atlantic Ry. ; Dartmouth Branch—4 miles—not in operation during the year.	
330,661	125,089	48,525	20	14	12		
15,828,609	2,892,995	3,720,567	28	18	13		
*	5,979	5,123	20	15	14	* Railway not fully completed ; no record kept.	
32,000	5,259	11,339	.....	18	15		
6,700	7,100	230	25	18	16		
111,000	46,171	62,841	25	20	17		
40,800	10,466	13,258	.....	17	18		
132,691	21,657	389,754	.....	20	19		
90,700	21,771	95,726	25	15	20		
16,902	4,723	9,151	16	.....	21		
171,195	88,783	116,414	25	15	22		
183,833	50,864	38,877	20	12	23		
.....	.....	.....	.....	.....	24		Included in Canada Eastern Railway which company run their trains across this bridge, paying toll.

## No. 4.—SUMMARY STATEMENT of the Operations of the Year

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
25	Grand Trunk—Continued.					
	London, Huron and Bruce...	69 01				
	Waterloo Junction.....	10 25				
	South Norfolk.....	17 00				
	Wellington, Grey and Bruce.	168 13				
	Northern.....	172 10				
	North Simcoe.....	33 34				
	Hamilton and North-western.	173 90	3,161 98	5,443,747	7,851,463	2,085,999
	Northern and Pacific Junction	111 37				15,381,209
	Toronto Belt Line.....	12 70				
	Midland.....	166 78				
	Grand Junction.....	85 40				
	Toronto and Nipissing.....	85 00				
	Lake Simcoe Junction.....	26 50				
	Victoria.....	53 25				
	Whitby, Port Perry & Lindsay	46 50				
	Cobourg, Blairton & Marmora	15 00				
	Jacques Cartier Union.....	6 50				
	Montreal & Champlain Junction	61 75				
	Beauharnois Junction..	19 50				
26	St. Clair Tunnel.....	2 23				
27	Great Northern.....	28 00			14,520	14,520
28	Great North-west Central.....	50 93		1,632	12,769	14,401
29	Hereford.....	53 00	23,712	60,157		83,869
30	Irondale, Bancroft and Ottawa	30 00			40,576	40,576
31	Joggins, now Canada Coal and Ry. Co.	12 00	1,000	1,500	15,000	17,500
32	Kent Northern.....	34 00			18,366	18,366
33	Kingston and Pembroke.....	112 85	65,104		69,992	135,096
34	L'Assomption.....	3 00			5,284	5,284
35	Lake Erie and Detroit River	88 05				
	London and Port Stanley.....	23 75	111 80	163,624	22,600	52,584
						238,808
36	Lotbinière and Mégantic.....	23 34			11,232	11,232
37	Lower Laurentian.....	39 50		354	24,286	24,640
38	Manitoba and North-western	234 50	249 97	35,120	24,419	42,018
	Saskatchewan and Western....	15 47				101,557
39	Massawippi Valley.....	34 00	68,448	105,519	11,004	184,971
40	Montford Colonization.....	21 00			4,756	4,756
41	Montreal and Atlantic, formerly					
	South-eastern.....	140 10				
	Lake Champlain and St. Lawrence Junction	61 40	201 50	133,891	202,112	100,581
						436,584
42	Montreal Park and Island (Electric)....	22 03				
43	Montreal Portland and Boston.....	40 60	37,339	19,891	10,829	68,059
44	Montreal and Vermont Junction.....	23 60	56,914	91,602	1,828	150,344
45	Nelson and Fort Sheppard.....	55 00			12,475	12,475
46	New Brunswick & Prince Edward Island.	36 00	11,376	5,576	20,918	37,870
47	New Glasgow Iron, Coal and Ry. Co., now Nova Scotia Steel Co.	12 50			15,625	15,625
48	Niagara Falls Park and River Electric Ry.	13 68	241,266	2,300		243,566
49	Northern Pacific and Manitoba.....	265 64	93,160	80,086	34,454	207,700
50	Nosbonsing and Nipissing.....	5 50		8,860		8,860
51	Nova Scotia Central.....	74 00			63,664	63,664
52	Orford Mountain.....	26 50	17,528	5,168	8,792	31,488
53	Ottawa and Gatineau.....	54 60	15,871	1,086	32,233	49,190
54	Ottawa, Arnprior and Parry Sound.....	144 00	109,842	58,526	12,282	180,650
55	Ottawa Valley.....	7 00			6,540	6,540
56	Parry Sound Colonization.....	40 00			23,068	23,068
57	Phillipsburg Ry. and Quarry Co.....	6 75			3,600	3,600
58	Pontiac Pacific Junction.....	70 60	782	3,640	46,310	50,732
59	Port Arthur, Duluth and Western.....	85 50	475	107	11,449	12,031
60	Qu'Appelle, Long Lake and Saskatchewan	253 96			52,900	52,900
61	Quebec and Lake St. John.....	242 00	84,013		105,898	189,911

## Department of Railways and Canals.

and Mileage, for the Year ended 30th June, 1895—Continued.

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passen- ger Trains—Miles per hour.	Average Rate of Speed of Freight Trains—Miles per hour.	Number.	Remarks.
20,230,397	5,054,145	7,002,612	30	18	25	Running powers on Chaudière Branch, I.C.R., 6 miles.
43,755					26	
14,988	4,624	5,360			20	27
15,721	2,412	24,240			17	28
83,869	14,925	89,170	20		12	29
40,998	6,992	7,671			18	30
28,080	12,984	77,607	20		15	31
18,366	5,420	11,320			18	32
162,115	40,755	75,415	25		18	33
5,284	6,709	546			12	34
289,904	264,289	189,972	35		25	35
11,232	2,905	14,457			25	36
25,730	12,409	28,316			20	37
124,755	23,634	94,388	27		15	38
184,971	60,968	146,020	25		12	39
4,936	1,725	689			13	40
445,769	161,662	553,415	30		18	41
	958,980					42
68,059	57,159	28,773	30		12	43
150,344	107,030	651,966	35		15	44
14,018	4,153	6,310			15	45
43,260	15,582	20,407	20		18	46
34,200	10,322	119,165			15	47
245,466	499,015		9			48
236,947	29,961	127,578			24	49
9,200		145,500			20	50
65,229	39,963	15,867			20	51
31,488	5,833	18,758	25		15	52
53,819	41,543	15,907	30		20	53
183,130	77,232	50,707	30		12	54
6,540	3,764	349			15	55
26,788	6,321	13,382			12	56
3,600	3,460	980			25	57
50,732	19,525	14,404	30		20	58
12,979	2,019	12,871	20		15	59
57,472	1,015	8,504			17	60
250,659	122,941	145,770	22		12	61

## No. 4.—SUMMARY STATEMENT of the Operations of the Year

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
62	Quebec Central .....	153 50	118,512	120,147	25,937	264,596
63	Quebec, Montmorency and Charlevoix ..	30 00	48,743	1,075		49,818
64	Salisbury and Harvey, including Harvey Branch, 3 miles.....	52 25			27,030	27,030
65	Shore Line .....	82 50	1,524		51,004	52,528
66	Stanstead, Shefford and Chambly.....	48 00	32,106	31,459	9,496	73,061
67	St. Catharines and Niagara Central.....	12 35	12,000	2,000	6,000	20,000
68	St. Lawrence and Adirondack.....	20 31	23,460		45,794	69,254
69	Sydney and Louisbourg.....	64 90	32,000	65,000		97,000
70	South Shore, Que., formerly Montreal and Sorel.....	44 67	28,500		28,500	57,000
71	Tenniscouata .....	113 00	10,179		79,264	89,443
72	Thousand Islands.....	4 33	12,168	2,808	11,232	26,208
73	Toronto, Hamilton and Buffalo.....	17 00			31,824	31,824
74	United Counties.....	61 00	30,624		28,248	58,872
75	Victoria and Sydney.....	16 26			11,520	11,520
76	Dominion Atlantic, comprising—					
	Windsor and Annapolis..... 37 50					
	Cornwallis Valley..... 14 00					
	Yarmouth and Annapolis..... 87 00					
	Windsor Branch of Intercol- onial..... 32 00	220 50	179,400	255,457		434,857
		15,976 75	15,332,276	19,939,699	5,389,915	40,661,890

## Department of Railways and Canals.

and Mileage, for the Year ended 30th June, 1895—*Concluded.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per hour.	Average Rate of Speed of Freight Trains—Miles per hour.	Number.	Remarks.
279,880	111,674	195,271	25	15	62	Running powers on I.C.R., Harlaka Junction to Lévis, 5 miles.
61,053	217,764	9,419	21	21	63	
29,970	7,966	29,743	.....	18	64	Running powers on Montreal and Atlantic, Yamaska to Sorel, 10 miles.
53,247	10,335	10,526	20	.....	65	
73,061	121,697	640,336	23	12	66	
20,000	24,809	59,366	25	20	67	
73,520	20,049	47,931	30	20	68	
100,000	67,432	1,003,697	25	20	69	
57,500	40,962	14,943	30	22	70	
89,978	12,205	30,164	20	16	71	
26,208	20,039	16,046	20	20	72	
31,824	26,827	85,617	.....	20	73	
59,372	12,852	21,370	30	25	74	
11,520	15,052	4,573	.....	25	75	
434,857	171,159	196,035	25	14	76	Running powers on Intercolonial Ry., Windsor Junction to Halifax, 14 miles.
<b>51,330,885</b>	<b>13,987,580</b>	<b>21,524,421</b>	.....	.....	.....	

## No. 5.—SUMMARY STATEMENT of description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.	
			Barrels.	Tons.	Bushels.	Tons.		
1	Alberta Railway and Coal Co. . . . .	64 62	60	6	4,783	87	904	
2	Albert Southern . . . . .	16 00	128	12	874	15	60	
3	Bay of Quinté Navigation Co. . . . .	4 00						
	Kingston, Napanee & Western . . . . .	60 82	38,040	3,804	146,727	4,036	3,917	
4	Baie des Chaleurs . . . . .	80 00	3,275	327	1,750	35	22	
5	Brockville, Westport and Sault Ste. Marie . . . . .	45 00	18,619	1,862	111,524	3,245	8,886	
6	Buctouche and Moncton . . . . .	32 00						
7	Calgary and Edmonton . . . . .	295 07	19,642	1,964	71,168	2,451	8,626	
8	Canada Atlantic . . . . .	138 00						
	Central Counties . . . . .	21 00	159 00	72,994	7,299	784,100	19,602	24,752
9	Canada Eastern . . . . .	136 00	54,596	5,459	88,359	1,502	555	
10	Canada Southern . . . . .	381 06	1,569,260	156,926	17,482,621	381,208	790,500	
	Canadian Government Railways—							
11	Intercolonial . . . . .	1,136 00	938,351	93,835	1,036,384	19,088	72,106	
12	Prince Edward Island . . . . .	210 60	27,464	2,741	305,926	5,249	7,307	
13	Canadian Pacific Railway . . . . .	4,039 50						
	Leased Lines—							
	Atlantic and North-west . . . . .	205 00						
	Ontario and Quebec . . . . .	469 00						
	Credit Valley . . . . .	175 10						
	West Ontario Pacific . . . . .	26 60						
	Toronto, Grey and Bruce . . . . .	191 30						
	Guelph Junction . . . . .	15 00						
	St. Lawrence and Ottawa . . . . .	58 40						
	Montreal and Ottawa . . . . .	23 60						
	Montreal and Western . . . . .	66 90						
	Montreal & L. Maskinonge . . . . .	12 90						
	New Brunswick . . . . .	173 95						
	New Brunswick and Canada . . . . .	117 20	6,161 00	2,605,331	228,682	23,814,306	610,278	499,356
	St. John and Maine . . . . .	91 80						
	St. John Bridge and Rail- way Extension . . . . .	1 75						
	Fredericton . . . . .	22 10						
	Manitoba South-western Colonization . . . . .	217 80						
	Columbia and Kootenay . . . . .	27 70						
	Shuswap and Okanagan . . . . .	51 00						
	Nakusp and Slocoo . . . . .	36 90						
	Alberta Railway, Dummore to Lethbridge . . . . .	109 50						
	Tobique Valley . . . . .	28 00						
14	Lake Temiscamingue Colonization . . . . .	45 84	5,617	561	87,252	1,482	54	
15	Caraquet . . . . .	68 00	5,500	550	5,000	200	50	
16	Carillon and Grenville . . . . .	13 00	100	10			300	
17	Central Ontario . . . . .	104 00	12,245	1,200	306,400	7,660	3,216	
18	Central of New Brunswick . . . . .	75 00	2,250	225	7,412	126		
19	Cumberland Railway and Coal Co . . . . .	32 00	8,491	849	26,242	453	34	
20	Drummond County . . . . .	90 53	25,560	2,582	61,644	1,108	43	
21	Elgin and Havelock . . . . .	27 00	2,273	227	4,952	99	2,212	
22	Erie and Huron . . . . .	76 75	263,077	26,358	824,108	20,533	10,062	
23	Esquimalt and Nanaimo . . . . .	78 00	2,750	275	15,650	313	4,216	
24	Fredericton and St. Mary's Railway and Bridge Co . . . . .	1 33						
25	Grand Trunk . . . . .	884 25						
	Great Western . . . . .	561 80						
	Brantford, Norfolk and Port Burwell . . . . .	34 78						
	Buffalo and Lake Huron . . . . .	162 00						
	Grand Trunk, Georgian Bay and Lake Erie . . . . .	172 75						
	Owen Sound Branch . . . . .	12 42						
	London, Huron and Bruce . . . . .	69 01						
	Waterloo Junction . . . . .	10 25						

## Department of Railways and Canals

Freight carried for the Year ended 30th June, 1895.

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manu- factured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.	
	Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.			
44	588,098	996	715	782	15	*29,027	30,957	1	* Including bituminous and anthracite coal.	
10	3,879,555	4,128	180	265	661	79	5,170	2		
1,567	41,051,429	71,840	10,392	15,589	18,528	35,549	150,913	3		
10	258,000	345	.....	.....	1,952	979	3,648	4		
1,171	443,848	641	.....	.....	4,526	966	12,411	5		
.....	390,000	477	4,291	7,971	.....	*7,555	16,003	6		* Including stone, bark, ties, logs and ice.
3,708	2,725,620	3,461	342	513	6,275	3,919	22,291	7		
4,959	154,994,257	232,492	28,560	49,981	12,690	149,280	476,303	8		
135	16,326,550	21,286	3,384	4,225	15,483	30,908	78,998	9		
158,100	127,178,500	254,357	27,634	41,452	425,997	1,446,633	2,864,673	10		
11,351	202,247,269	252,809	11,149	19,470	311,864	559,399	1,267,816	11		
1,040	3,932,000	5,898	2,186	4,659	28,938	.....	48,525	12		
115,529	592,736,540	770,873	181,029	314,842	903,047	777,316	3,720,567	13		
32	264,352	333	5	5	1,030	1,680	5,123	14		
25	*5,004,000	7,887	500	750	500	1,427	11,339	15	* Including logs.	
75	.....	.....	.....	.....	45	100	230	16		
1,608	2,190,000	2,190	13,333	23,333	24,101	2,749	62,841	17		
.....	6,363,000	9,544	910	1,344	.....	*2,019	13,258	18	* Including 194 tons [coal.	
17	11,202,000	14,044	.....	.....	4,538	*369,853	389,754	19	* Coal.	
31	13,522,900	17,653	15,552	25,443	7,196	41,713	95,726	20		
233	4,145,850	6,195	1,122	1,122	880	395	9,151	21		
1,976	25,308,000	31,970	359	.....	671	7,233	116,414	22		
660	4,094,373	6,952	.....	7,000	309	23,368	38,877	23		
.....	.....	.....	.....	.....	.....	.....	.....	24	Included in [Canada Eastern.	

No. 5.—SUMMARY STATEMENT of description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.
			Barrels.	Tons.	Bushels.	Tons.	
25	Grand Trunk—Continued.						
	South Norfolk.....	17 00					
	Wellington, Grey and Bruce.....	168 13					
	Northern.....	172 10					
	North Simcoe.....	33 34					
	Hamilton and North-western.....	173 90	3,161 98	4,285,030	423,503	42,578,080	1,064,452
	Northern and Pacific Junction.....	111 37					1,701,610
	Toronto Belt Line.....	12 70					
	Midland.....	166 78					
	Grand Junction.....	85 40					
	Toronto and Nipissing.....	85 00					
	Lake Simcoe Junction.....	26 50					
	Victoria.....	53 25					
	Whitby, Port Perry and Lindsay.....	46 50					
	Cobourg, Blairton and Mar- mora.....	15 00					
	Jacques Cartier Union.....	6 50					
	Montreal and Champlain Junction.....	61 75					
	Beauharnois Junction.....	19 50					
26	St. Clair Tunnel.....	2 23					
27	Great Northern.....	28 00	4,650	465	8,250	165	118
28	Great North-west Central.....	50 93	2,790	279	1,049,104	18,734	1,375
29	Hereford.....	53 00	7,000	700	12,852	260	48
30	Irondale, Bancroft and Ottawa.....	30 00	4,490	440	15,650	313	
31	Joggins, now Canada Coals and Ry. Co.....	12 00	1,753	175	12,474	210	4
32	Kent Northern.....	34 00	7,956	796	1,212	22	36
33	Kingston and Pembroke.....	112 85	7,500	750	23,500	705	
34	L'Assomption.....	3 00	1,300	132			
35	Lake Erie and Detroit River.....	88 05					
	London and Port Stanley.....	23 75	111 80	17,640	1,905	179,239	14,239
36	Lotbinière and Mégantic.....	23 34					
37	Lower Laurentian.....	39 50	5,479	547	5,012	501	
38	Manitoba and North-western.....	234 50	249 97	52,573	5,257	2,637,380	70,322
	Saskatchewan and Western.....	15 47					11,561
39	Massawippi Valley.....	34 00	6,200	620	255,000	5,110	3,750
40	Montford Colonization.....	21 00	414	41	92	2	
41	Montreal and Atlantic, formerly South-eastern.....	140 10					
	Lake Champlain and St. Law- rence Junction.....	61 40	201 50	238,596	23,860	1,254,965	23,390
42	Montreal Park and Island, Electric.....	22 03					
43	Montreal, Portland and Boston.....	40 60	5,090	509	13,143	368	292
44	Montreal and Vermont Junction.....	23 60	366,600	36,600	5,564,535	155,807	416,120
45	Nelson and Fort Sheppard.....	55 00	1,660	166	10,170	173	1,050
46	New Brunswick & Prince Edward Island.....	36 00	22,288	2,249	13,715	251	605
47	New Glasgow Iron, Coal and Ry. Co., now Nova Scotia Steel Co.....	12 50	1,969	197	4,880	83	
48	Niagara Falls Park & River, Electric Ry.....	13 68					
49	Northern Pacific and Manitoba.....	265 64	6,410	641	1,760,600	55,119	735
50	Nosbonsing and Nipissing.....	5 50					
51	Nova Scotia Central.....	74 00	1,583	158			57
52	Orford Mountain.....	26 50	6,337	621	19,420	311	
53	Ottawa and Gatineau.....	54 60	13,462	1,347	49,115	1,714	974
54	Ottawa, Arnprior and Parry Sound.....	144 00	8,809	969	18,640	4,660	22,560
55	Ottawa Valley.....	7 00	300	30	1,800	62	
56	Parry Sound Colonization.....	40 00					
57	Philipsburg Ry. & Quarry Co.....	6 75					
58	Pontiac Pacific Junction.....	70 60	4,212	421	110,543	2,221	1,351



# Department of Railways and Canals.

## Freight carried, &c.—Continued.

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manu- factured Goods.	All other Articles.	Total Weight Carried.	Num- ber.	Remarks.
	Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.		
340,322	482,775,000	965,550	116,928	175,392	767,551	3,260,842	7,002,612	25	
60	252,000	366	1,240	2,232	981	1,091	5,360	26	
432	1,489,400	2,979	286	430	880	506	24,240	27	
474	17,607,700	26,410	4,608	8,161	565	52,600	89,170	29	
.....	37,000	51	82	66	5,632	1,169	7,671	30	
2	426,509	468	.....	.....	1,328	*75,424	77,607	31	*Including coal, stone
18	761,500	1,523	900	900	4,061	4,000	11,320	32	and hay.
.....	20,260,000	30,390	9,482	17,505	25,510	555	75,415	33	
.....	14,000	21	8	17	23	353	546	34	
4,856	65,000,000	97,450	26,000	13,317	58,205	.....	189,972	35	
.....	6,730,000	10,103	570	855	32	*3,467	14,457	36	*Including pulpwood
.....	2,715,000	4,035	7,713	16,768	1,505	4,960	28,316	37	and bark.
4,857	2,480,829	3,149	376	505	7,074	3,224	94,388	38	
750	33,720,000	46,365	.....	.....	1,025	*92,150	146,020	39	*Including ore and
.....	119,000	357	70	88	69	132	689	40	copper matte.
2,775	96,022,107	120,444	19,483	29,226	142,954	210,766	553,415	41	
73	1,309,000	1,869	20	28	503	*25,423	28,773	42	
104,030	27,559,000	39,375	315	452	20,178	*295,464	651,966	44	*Including 15,834 tons
136	18,000	27	.....	.....	1,520	*4,288	6,310	45	hay.
48	6,779,000	10,168	1,162	1,762	1,047	4,882	20,407	46	*Including ore and
.....	169,400	352	7	20	841	*117,672	119,165	47	bullion.
404	5,079,300	7,619	12,000	21,001	7,329	35,465	127,578	48	*Including ore, coal
.....	*65,000,000	*145,500	.....	.....	.....	.....	145,500	50	iron.
28	8,186,666	12,280	1,825	3,193	208	.....	15,867	51	*Logs and lumber.
.....	6,547,000	6,789	3,114	4,614	1,517	4,906	18,758	52	
234	724,997	1,149	1,884	*2,095	3,791	5,577	15,907	53	*Including pulpwood
1,453	16,813,000	25,219	918	1,607	633	16,166	50,707	54	
.....	9,500	14	.....	.....	.....	243	349	55	
.....	2,533,000	3,800	2,200	3,550	6,032	.....	13,382	56	
.....	60,000	90	.....	.....	34	*856	980	57	*Including marble,
382	964,983	1,533	*2,333	4,147	3,209	2,491	14,404	58	hay, straw and 71

## No. 5.—SUMMARY STATEMENT of description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.
			Barrels.	Tons.	Bushels.	Tons.	
59	Port Arthur, Duluth and Western.....	85 50					12
60	Qu'Appelle, Long Lake & Saskatchewan	253 96	6,780	678	37,804	1,052	2,952
1	Quebec and Lake St. John .....	242 00	34,549	3,454	15,670	313	2,045
62	Quebec Central .....	153 50	119,967	11,997	65,097	1,953	9,050
63	Quebec, Montmorency and Charlevoix..	30 00	3,410	333	3,520		79
64	Salisbury and Harvey, including Harvey Branch, 3 miles .....	52 25	6,217	621	19,051	323	331
65	Shore Line .....	82 50	4,626	462	13,423	269	70
66	Stanstead, Shefford and Chambly.....	43 00	369,830	36,983	5,394,750	151,053	417,792
67	St. Catharines and Niagara Central. ....	12 35	366	36	8,430	160	311
68	St. Lawrence and Adirondack.....	20 31	2,320	232	11,600	290	458
69	Sydney and Louisbourg .....	64 90	4,100	402			150
70	South Shore, Que., formerly Montreal and Sorel.....	44 67			1,500	30	
71	Temiscouata .....	113 00	14,065	1,406	16,213	360	296
72	Thousand Islands.....	4 33	4,210	421	4,291	118	899
73	Toronto, Hamilton and Buffalo.....	17 00	1,264	128	26,058	718	151
74	United Counties.....	61 00	57,670	5,767	152,941	2,600	150
75	Victoria and Sydney, B.C.....	16 26	339	34	2,617	56	445
76	Dominion Atlantic, comprising— Windsor and Annapolis..... 87 50 Cornwallis Valley..... 14 00 Yarmouth and Annapolis..... 87 00 Windsor Branch of Inter- colonial..... 32 00	220 50	92,764	9,276			10,258
		15,976 75	11,480,191	1,116,472	106,559,523	2,657,388	4,075,964

## Department of Railways and Canals.

### Freight carried, &c.—*Concluded.*

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manu- factured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
	Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.		
8	1,534,427	6,160	999	499	154	5,050	12,871	59	
1,495	1,331,264	1,678	713	1,070	1,999	532	8,504	60	
450	47,148,000	68,307	26,370	47,476	8,074	17,696	145,770	61	
1,810	70,157,962	105,237	767	1,439	3,566	69,269	195,271	62	
55	1,017,436	855	452	420	2,306	5,321	9,419	63	
165	11,117,000	13,896	2,933	5,299	233	*9,206	29,743	64	*Including hay and
70	5,864,000	5,864	179	257	1,772	1,832	10,526	65	plaster.
104,448	29,505,000	42,150	635	908	20,527	*284,267	640,336	66	*Including 54,621
111	66,600	98	14	25	17,343	*41,593	59,366	67	tons hay.
229	889,300	13,490	.....	.....	12,167	21,523	47,931	68	*Including 9,320
45	2,000,000	2,000	.....	.....	50	*1,001,200	1,003,697	69	cords pulpwood.
.....	194,000	293	120	150	9,720	*4,750	14,943	70	*1,000,000 tons coal.
15	9,454,000	12,817	6,222	10,335	672	4,559	30,164	71	*Including hay.
359	1,981,714	3,468	.....	.....	4,646	7,034	16,046	72	
21	1,043,405	2,359	198	269	5,970	76,152	85,617	73	
150	65,000	975	500	75	3,204	8,599	21,370	74	
28	602,000	1,054	1,309	2,618	243	540	4,573	75	
2,270	9,265,364	13,898	2,782	4,868	32,623	*133,100	196,035	76	*Including hay and
875,344	2,284,245,486	3,576,415	609,111	904,056	2,965,314	9,429,482	21,524,421		produce, apples, potatoes and min- erals.

## No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.		Freight Traffic.		Mails and Express Freight.	
			\$	cts.	\$	cts.	\$	cts.
1	Alberta Railway and Coal Co. ....	64 62	2,841	75	25,500	42	471	10
2	Albert Southern. ....	16 00	489	00	1,789	66		
3	Bay of Quinté Navigation Co. .... 4 00 Kingston, Napanee and Western. .... 60 82	64 82	19,765	89	78,692	02	8,834	79
4	Baie des Chaleurs .....	80 00	5,912	55	7,354	86	407	50
5	Brockville, Westport and Sault St. Marie. ....	45 00	11,690	70	13,381	71	306	14
6	Buctouche and Moncton. ....	32 00	2,877	76	8,641	38		
7	Calgary and Edmonton. ....	295 07	33,428	00	64,102	71	5,295	72
8	Canada Atlantic. .... 138 00 Central Counties .....	159 00	133,344	09	363,022	80	45,070	21
9	Canada Eastern. ....	136 00	27,571	29	70,764	64	4,881	84
10	Canada Southern. ....	381 06	971,810	20	2,899,084	67	152,002	22
	Canadian Government Railways—							
11	Intercolonial .....	1,136 00	963,914	44	1,782,608	54	*194,194	97
12	Prince Edward Island .....	210 60	62,239	37	68,061	11	18,893	30
13	Canadian Pacific Railway .....	4,039 50						
	Leased Lines—							
	Atlantic and North-west .....	205 00						
	Ontario and Quebec. ....	469 00						
	Credit Valley. ....	175 10						
	West Ontario Pacific. ....	26 60						
	Toronto, Grey and Bruce. ....	191 30						
	Guelph Junction .....	15 00						
	St. Lawrence and Ottawa. ....	58 40						
	Montreal and Ottawa. ....	23 60						
	Montreal and Western. ....	66 90						
	Montreal and Lake Maskinongé. ....	12 90						
	New Brunswick. ....	173 95						
	New Brunswick and Canada. ....	117 20						
	St. John and Maine. ....	91 80						
	St. John Bridge and Ry. Extension Fredericton .....	1 75 22 10						
	Manitoba South-western Coloniza- tion .....	217 80						
	Columbia and Kootenay. ....	27 70						
	Nakusp and Slocan. ....	36 90						
	Shuswap and Okanagan .....	51 00						
	Alberta Railway, Dunmore to Lethbridge. ....	109 50						
	Tobique Valley .....	28 00						
14	Lake Temiscamingue Colonization. ....	45 84	13,761	80	35,840	56	270	00
15	Caraquet .....	68 00	4,306	63	13,885	66	2,060	70
16	Carillon and Grenville. ....	13 00	1,678	93	177	14		
17	Central Ontario. ....	104 00	24,760	23	50,790	22	8,701	65
18	Central of New Brunswick. ....	75 00	5,660	00	7,301	94		
19	Cumberland Railway and Coal Co. ....	32 00	8,584	91	14,388	46	2,072	86
20	Drummond County. ....	90 53	13,368	65	69,879	46	3,793	49
21	Elgin and Havelock. ....	27 00	1,324	59	5,888	53	710	88
22	Errie and Huron. ....	76 75	39,462	56	59,325	35	6,043	04
23	Esquimalt and Nanaimo. ....	78 00	57,369	35	48,176	49	2,920	32
24	Fredericton and St. Mary's Ry. and Bridge Co. .....	1 33	1,172	15	2,844	22		
25	Grand Trunk. ....	884 25						
	Great Western. ....	561 80						
	Brantford, Norfolk and Port Burwell .....	34 78						
	Buffalo and Lake Huron. ....	162 00						
	Grand Trunk, Georgian Bay and Lake Errie .....	172 75						
	Owen Sound Branch. ....	12 42						
	London, Huron and Bruce. ....	69 01						
	Waterloo Junction. ....	10 25						
	South Norfolk. ....	17 00						
	Wellington, Grey and Bruce. ....	168 13						



## No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.		Freight Traffic.		Mails and Express Freight.
			\$	cts.	\$	cts.	\$
25	Grand Trunk—Continued.						
	Northern.....	172 10					
	North Simcoe.....	33 34					
	Hamilton and North-western.....	173 90	3,161 98	4,954,624 04	10,236,134 74	800,815 71	
	Northern and Pacific Junction.....	111 37					
	Toronto Belt Line.....	12 70					
	Midland.....	166 78					
	Grand Junction.....	85 40					
	Toronto and Nipissing.....	85 00					
	Lake Simcoe Junction.....	26 50					
	Victoria.....	53 25					
	Whitby, Port Perry and Lindsay.....	46 50					
	Cobourg, Blairton and Marmora.....	15 00					
	Jacques Cartier Union.....	6 50					
	Montreal and Champlain Junction.....	61 75					
	Beauharnois Junction.....	19 50					
26	St. Clair Tunnel.....	2 23		*43,656 00	†162,858 50		
27	Great Northern.....	28 00		1,494 90	3,021 40		
28	Great North-west Central.....	50 93		2,300 05	27,688 40		
29	Hereford.....	53 00		9,392 46	31,367 04	1,292 16	
30	Irondale, Bancroft and Ottawa.....	30 00		3,212 00	4,526 23	568 23	
31	Joggins, now Canada Coals and Railway Co.....	12 00		3,640 35	29,490 24	465 29	
32	Kent Northern.....	34 00		3,110 64	7,143 05	868 41	
33	Kingston and Pembroke.....	112 85		29,758 34	77,997 79	8,346 08	
34	L'Assomption.....	3 00		1,403 55	193 95	301 72	
35	Lake Erie and Detroit River.....	88 05	111 80	76,936 14	110,291 23	10,331 38	
	London and Port Stanley.....	23 75					
36	Lotbinière and Mégantic.....	23 34		735 96	5,778 00		
37	Lower Laurentian.....	39 50		3,361 69	13,072 82	730 08	
38	Manitoba and North-western.....	234 50	249 97	44,163 87	164,625 86	9,150 89	
	Saskatchewan and Western.....	15 47					
39	Massawippi Valley.....	34 00		49,057 31	104,932 41	1,971 90	
40	Montford Colonization.....	21 00		458 00	1,015 00	1 00	
41	Montreal and Atlantic, formerly South-eastern.....	140 10	201 50	109,424 55	320,661 39	10,055 94	
	Lake Champlain and St. Lawrence Junction.....	61 40					
42	Montreal Park and Island (Electric).....	22 03		57,538 75			
43	Montreal, Portland and Boston.....	40 60		20,135 00	25,501 77	4,116 00	
44	Montreal and Vermont Junction.....	23 60		45,293 42	98,432 17	9,181 46	
45	Nelson and Fort Sheppard.....	55 00		7,892 75	12,636 25	735 20	
46	New Brunswick and Prince Edward Island.....	36 00		5,367 07	12,127 94	1,604 19	
47	New Glasgow Iron, Coal and Railway Co., now Nova Scotia Steel Co.....	12 50		2,075 78	11,051 93	312 00	
48	Niagara Falls Park and River Electric Railway.....	13 68		63,643 95			
49	Northern Pacific and Manitoba.....	265 64		44,393 36	144,434 04	8,753 27	
50	Nosbonsing and Nipissing.....	5 50			43,650 00		
51	Nova Scotia Central.....	74 00		21,405 43	20,469 75	2,146 56	
52	Orford Mountain.....	26 50		1,938 68	13,367 73	347 76	
53	Ottawa and Gatineau.....	54 60		25,878 43	24,878 80	2,504 12	
54	Ottawa, Arnprior and Parry Sound.....	144 00		56,101 04	63,499 70	5,379 92	
55	Ottawa Valley.....	7 00		1,128 50	201 25	18 30	
56	Parry Sound Colonization.....	40 00		4,375 52	10,352 42		
57	Philipsburg Railway and Quarry Co.....	6 75		453 76	519 73		
58	Pontiac Pacific Junction.....	70 60		13,626 81	17,251 87	2,266 50	
59	Port Arthur, Duluth and Western.....	85 50		1,352 20	6,165 24		
60	Qu'Appelle, Long Lake and Saskatchewan.....	253 96		13,572 71	33,973 02	2,434 69	
61	Quebec and Lake St. John.....	242 00		56,104 86	126,715 04	10,532 66	
62	Quebec Central.....	153 50		110,225 31	208,689 20	10,204 91	
63	Quebec, Montmorency and Charlevoix.....	30 00		39,791 14	7,708 07		
64	Salisbury and Harvey, including Harvey Branch.....	52 25		5,115 72	12,105 79	2,478 68	
65	Shore Line.....	82 50		11,236 87	12,945 12	3,192 36	

# Department of Railways and Canals.

for the Year ended 30th June, 1895—Continued.

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	p. c.	cents.		
99,632 51	16,091,207 00	4,997,484 04	145	104 61	25	
‡112 50	206,627 00	117,013 91	231	..... 26	26	* Tolls on passenger cars. † Tolls on freight cars. ‡ Tolls on new locomotives.
.....	4,516 30	-1,426 17	76	31 10	27	
422 67	30,411 12	9,734 92	147	211 17	28	
.....	42,051 66	-8,578 71	83	50 14	29	
.....	8,306 46	2,443 87	142	20 47	30	
175 18	33,771 06	17,931 26	213	192 97	31	
.....	11,122 10	4,329 48	164	60 55	32	
6,714 70	122,816 91	18,625 95	118	90 91	33	
.....	1,899 22	122 20	107	35 94	34	
6,220 00	203,778 75	57,235 57	139	85 33	35	
.....	6,513 96	-31,540 71	.....	58 00	36	
246 67	17,411 26	459 24	103	70 66	37	
6,094 35	224,034 97	42,919 90	124	220 60	38	
4,166 67	160,128 29	42,909 97	137	86 56	39	
.....	1,474 00	-1,172 00	56	30 99	40	
11,996 28	452,138 16	130,596 12	141	103 56	41	
6,316 53	63,855 28	8,914 26	116	..... 42	42	
400 00	50,132 77	7,653 69	118	73 69	43	
197 86	153,104 91	57,778 87	161	101 83	44	
.....	21,264 20	-6,476 48	76	170 45	45	
25 80	19,125 00	4,803 33	134	50 50	46	
4,500 00	17,939 71	2,529 33	116	114 81	47	
2,104 81	65,748 76	25,117 95	162	26 99	48	
1,944 14	199,524 81	-42,320 34	83	96 06	49	
.....	43,650 00	17,459 77	167	492 66	50	
1,555 96	45,577 70	7,911 90	121	71 59	51	
.....	15,654 17	2,690 54	121	49 71	52	
75 75	53,337 10	12,301 97	130	108 43	53	
81 98	125,062 64	28,149 92	129	69 22	54	
2 50	1,350 55	-146 93	90	20 65	55	
.....	14,727 94	2,538 22	121	63 84	56	
.....	973 49	-3,079 00	24	27 04	57	
312 23	33,457 41	-3,872 58	90	65 94	58	
171 40	7,688 84	-7,176 25	52	63 90	59	
.....	49,980 42	12,530 76	133	94 48	60	
5,385 68	198,738 24	16,070 21	109	104 64	61	
1,004 63	330,124 05	115,777 61	154	124 76	62	
1,336 50	48,835 71	14,606 83	143	98 02	63	
292 93	19,993 12	428 44	102	73 96	64	
150 60	27,524 95	-7,654 15	78	52 40	65	

Only operated for 9 months.

## No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger	Freight	Mails
			Traffic.	Traffic.	and Express
			\$ cts.	\$ cts.	Freight.
					\$ cts.
66	Stanstead, Shefford and Chambly.....	43 00	16,703 96	35,688 18	3,772 68
67	St. Catharines and Niagara Central.....	12 35	5,156 09	17,360 41	200 00
68	St. Lawrence and Adirondack.....	20 31	10,372 83	19,368 47	1,322 60
69	Sydney and Louisbourg.....	64 90	13,993 22	162,245 13	.....
70	South Shore, formerly Montreal and Sorel.....	44 67	20,544 11	11,952 99	1,695 58
71	Temiscouata.....	113 00	12,613 08	34,618 45	13,226 81
72	Thousand Islands.....	4 33	3,948 99	9,575 12	1,682 92
73	Toronto, Hamilton and Buffalo.....	17 00	6,757 11	27,112 53	137 40
74	United Counties.....	61 00	9,954 24	23,533 35	233 32
75	Victoria and Sydney.....	16 26	3,552 35	2,876 22	20 25
76	Dominion Atlantic, comprising—				
	Windsor and Annapolis..... 87 50	220 50	193,908 21	204,372 85	23,474 04
	Cornwallis Valley..... 14 00				
	Yarmouth and Annapolis..... 87 00				
	Windsor Branch of Intercolonial..... 32 00				
		15,976 75	13,311,440 07	29,545,490 23	2,198,460 22



## Department of Railways and Canals.

for the Year ended 30th June, 1895—*Concluded.*

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	p. c.	cents.		
154 00	56,318 82	96 67	100	77 08	66	
89 00	22,805 50	286 19	101	114 02	67	
.....	31,063 90	3,434 80	112	44 85	68	
24,049 67	200,288 02	80,676 46	167	206 48	69	
484 04	34,676 72	8,183 96	131	60 83	70	
.....	60,458 34	1,588 50	103	67 59	71	
2,246 75	17,453 78	4,244 65	132	66 59	72	
180 00	34,187 04	16,624 51	195	107 42	73	
.....	33,720 91	7,450 52	128	57 27	74	
.....	6,443 82	-4,321 56	60	55 97	75	
1,261 60	423,016 70	131,912 84	145	97 27	76	
1,730,096 13	46,785,486 65	14,035,817 66				

## No. 7.—SUMMARY STATEMENT of Operating

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.		Working and Repairs of Engines.	
			\$	cts.	\$	cts.
1	Alberta Railway and Coal Co. ....	64 62	8,420	03	11,832	66
2	Albert Southern .....	16 00	244	60	1,784	71
3	Bay of Quinté Navigation Co .....	4 00				
	Kingston, Napanee and Western .....	60 82	14,511	10	25,825	65
4	Baie des Chaleurs .....	80 00	7,086	41	5,769	45
5	Brockville, Westport and Sault Ste. Marie .....	45 00	6,182	58	5,804	39
6	Buctouche and Moncton .....	32 00	3,789	57	4,540	15
7	Calgary and Edmonton .....	295 07	17,330	23	18,705	71
8	Canada Atlantic .....	138 00				
	Central Counties .....	21 00	159 00	80,501 11	140,955 34	
9	Canada Eastern .....	136 00	18,968	09	27,300	22
10	Canada Southern .....	381 06	444,575	04	705,796	82
	Canadian Government Railways—					
11	Intercolonial .....	1,136 00	679,468	39	1,043,656	57
12	Prince Edward Island .....	210 60	101,599	30	61,485	54
13	Canadian Pacific Railway .....	4,039 50				
	Leased Lines—					
	Atlantic and North-west .....	205 00				
	Ontario and Quebec .....	469 00				
	Credit Valley .....	175 10				
	West Ontario Pacific .....	26 60				
	Toronto, Grey and Bruce .....	191 30				
	Guelph Junction .....	15 00				
	St. Lawrence and Ottawa .....	58 40				
	Montreal and Ottawa .....	23 60				
	Montreal and Western .....	66 90				
	Montreal and Lake Maskinongé .....	12 90	6,161 00	2,742,322 27	3,416,074 87	
	New Brunswick .....	173 95				
	New Brunswick and Canada .....	117 20				
	St. John and Maine .....	91 80				
	St. John Bridge and Railway Extension .....	1 75				
	Fredericton .....	22 10				
	Manitoba South-western Colonization .....	217 80				
	Columbia and Kootenay .....	27 70				
	Nakusp and Slocan .....	36 90				
	Shuswap and Okanagan .....	51 00				
	Alberta Railway, Dunmore to Lethbridge .....	109 50				
	Tobique Valley .....	28 00				
14	Lake Temiscamingue Colonization .....	45 84				
15	Caraget .....	68 00	5,840	50	7,045	00
16	Carillon and Grenville .....	13 00	1,065	95	2,017	93
17	Central Ontario .....	104 00	31,564	37	15,390	12
18	Central of New Brunswick .....	75 00	11,056	22	8,904	39
19	Cumberland Railway and Coal Co .....	32 00	13,815	86	17,973	50
20	Drummond County .....	90 53	13,166	10	16,272	71
21	Elgin and Havelock .....	27 00	3,598	43	3,091	59
22	Erie and Huron .....	76 75	18,597	20	26,435	30
23	Esquimalt and Nanaimo .....	78 00	63,940	37	29,829	82
24	Fredericton and St. Mary's Railway and Bridge Co. ....	1 33	1,470	37		
25	Grand Trunk .....	884 25				
	Great Western .....	561 80				
	Brantford, Norfolk and Port Burwell .....	34 78				
	Buffalo and Lake Huron .....	162 00				
	Grand Trunk, Georgian Bay and Lake Erie .....	172 75				
	Owen Sound Branch .....	12 42				
	London, Huron and Bruce .....	69 01				
	Waterloo Junction .....	10 25				
	South Norfolk .....	17 00				
	Wellington, Grey and Bruce .....	168 13				
	Northern .....	172 10				
	North Simcoe .....	33 34	3,161 98	1,849,768 20	3,817,350 99	
	Hamilton and North-western .....	173 90				
	Northern and Pacific Junction .....	111 37				
	Toronto Belt Line .....	12 70				

## Department of Railways and Canals

Expenses for the Year ended 30th June, 1895.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	cents.		
1,589 61	26,167 44	48,009 74	200 02	1	From Lethbridge to Coutts on International boundary—the portion from Dunmore to Lethbridge, 109 50 miles, is operated by Canadian Pacific Railway under lease.
12 00	510 00	2,551 31	42 52	2	
4,352 65	31,523 94	76,213 34	58 66	3	
567 60	3,080 52	16,503 98	32 42	4	
610 06	8,069 24	20,666 27	72 80	5	
768 32	5,373 12	14,471 16	75 37	6	
3,645 96	15,637 67	55,319 57	81 42	7	
37,226 20	148,972 92	407,655 57	94 40	8	
3,609 91	18,620 20	68,498 42	37 03	9	
183,119 66	1,384,372 52	2,717,864 04	91 21	10	
400,783 83	812,993 95	2,936,902 74	73 43	11	
17,017 59	52,802 76	232,905 19	101 10	12	
700,466 14	4,423,642 72	11,282,506 00	91 58	13	Including portion of Alberta Railway and Coal Company's line from Dunmore to Lethbridge, 109 50 miles.
.....	*34,818 74	34,818 74	†	14	*Operating expenses have not been classified. †Train mileage not given.
1,150 00	6,078 92	20,114 42	62 85	15	
140 86	31 24	3,255 98	50 87	16	
4,032 49	20,654 68	71,641 66	64 54	17	
3,102 91	6,140 37	29,203 89	71 57	18	
4,869 53	12,130 98	48,789 87	70 52	19	
1,682 30	21,194 45	52,315 56	58 19	20	
.....	3,172 05	9,862 07	58 34	21	
3,424 55	31,160 77	79,617 82	51 19	22	
7,754 76	185,352 04	286,876 99	156 05	23	
.....	1,400 00	2,870 37	.....	24	
1,153,919 10	4,272,684 67	11,093,722 96	72 12	25	

## No. 7.—SUMMARY STATEMENT of Operating Expenses

Number.	Name of Railway.	Mileage.	Maintenance	Working
			of Line, Buildings, &c.	and Repairs of Engines.
			\$ cts.	\$ cts.
25	Grand Trunk— <i>Continued.</i>			
	Midland .....	166 78		
	Grand Junction .....	85 40		
	Toronto and Nipissing .....	85 00		
	Lake Simcoe Junction .....	26 50		
	Victoria .....	53 25		
	Whitby, Port Perry and Lindsay .....	46 50		
	Cobourg, Blairton and Marmora .....	15 00		
	Jacques Cartier Union .....	6 50		
	Montreal and Champlain Junction .....	61 75		
	Beauharnois Junction .....	19 50		
26	St. Clair Tunnel .....	2 23	4,170 60	52,564 20
27	Great Northern .....	28 00	1,172 40	3,054 61
28	Great North-west Central .....	50 93	2,529 35	6,304 35
29	Hereford .....	53 00	18,668 08	20,184 38
30	Irondale, Bancroft and Ottawa .....	30 00	1,417 63	2,673 90
31	Joggins, now Canada Coals and Railway Co. ....	12 00	5,077 62	6,385 80
32	Kent Northern .....	34 00	1,652 55	2,530 07
33	Kingston and Pembroke .....	112 85	33,806 67	36,339 09
34	L'Assomption .....	3 00	294 43	662 90
35	Lake Erie and Detroit River .....	88 05		
	London and Port Stanley .....	23 75		
36	Lotbinière and Mégantic .....	23 34	33,185 14	3,042 56
37	Lower Laurentian .....	39 50	5,687 18	5,630 04
38	Manitoba and North-western .....	234 50		
	Saskatchewan and Western .....	15 47		
39	Massawippi Valley .....	34 00	22,979 41	44,839 91
40	Montford Colonization .....	21 00	567 00	826 06
41	Montreal and Atlantic, formerly South-eastern ..	140 10		
	Lake Champlain and St. Lawrence Junction ..	61 40		
42	Montreal Park and Island (Electric) .....	22 03	4,628 97	12,562 14
43	Montreal, Portland and Boston .....	40 60	16,127 12	13,420 06
44	Montreal and Vermont Junction .....	23 60	15,036 52	34,900 57
45	Nelson and Fort Sheppard .....	55 00	14,037 92	3,729 14
46	New Brunswick and Prince Edward Island .....	36 00	5,821 14	5,519 75
47	New Glasgow Iron, Coal and Railway Co., now Nova Scotia Steel Co .....	12 50	3,116 17	7,629 85
48	Niagara Falls Park and River Electric Railway .....	13 68	1,914 44	*4,236 86
49	Northern Pacific and Manitoba .....	265 64	84,215 29	58,938 43
50	Nosbonsing and Nipissing .....	5 59	3,690 00	10,800 00
51	Nova Scotia Central .....	74 00	17,560 75	10,019 00
52	Orford Mountain .....	26 50	4,060 89	5,782 17
53	Ottawa and Gatineau .....	54 60	10,638 15	15,058 11
54	Ottawa, Arnprior and Parry Sound .....	144 00	25,833 44	41,108 62
55	Ottawa Valley .....	7 00	73 43	1,277 05
56	Parry Sound Colonization .....	40 00	3,230 48	7,092 74
57	Pontiac Pacific Junction .....	70 60	16,040 21	11,751 69
58	Philipsburg Railway and Quarry Co. ....	6 75	913 80	1,505 19
59	Port Arthur, Duluth and Western .....	85 50	4,957 63	3,585 81
60	Qu'Appelle, Long Lake and Saskatchewan .....	253 96	11,116 28	14,803 42
61	Quebec and Lake St. John .....	242 00	49,390 40	70,289 34
62	Quebec Central .....	153 50	60,834 02	52,948 98
63	Quebec, Montmorency and Charlevoix .....	30 00	8,353 33	11,745 29
64	Salisbury and Harvey, including Harvey Branch ..	52 25	7,520 31	6,563 37
65	Shore Line .....	82 50	14,696 38	8,776 62
66	Stanstead, Shefford and Chambly .....	43 00	16,970 12	15,285 26
67	St. Catharines and Niagara Central .....	12 35	4,636 92	6,560 92
68	St. Lawrence and Adirondack .....	20 31	5,209 29	7,408 43
69	Sydney and Louisbourg .....	64 90	14,559 76	30,979 94
70	South Shore, formerly Montreal and Sorel .....	44 67	7,959 26	8,719 99
71	Temiscouata .....	113 00	21,833 35	16,560 66
72	Thousand Islands .....	4 33	2,265 85	4,902 86
73	Toronto, Hamilton and Buffalo .....	17 00	3,378 78	4,834 46
74	United Counties .....	61 00	7,738 44	10,441 28

# Department of Railways and Canals.

for the Year ended 30th June, 1895—Continued.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	cents.		
.....	32,878 29	89,613 09	.....	26	
51 01	1,664 45	5,942 47	40 92	27	
80 52	11,761 98	20,676 20	143 57	28	
2,064 46	9,713 45	50,630 37	60 36	29	
735 90	1,035 16	5,862 59	14 44	30	
1,624 05	2,752 33	15,839 80	90 51	31	
100 00	2,510 00	6,792 62	36 98	32	
5,294 41	28,750 79	104,190 96	77 12	33	
70 33	749 36	1,777 02	33 63	34	
6,366 96	58,202 68	146,543 18	61 36	35	
.....	1,826 97	38,054 67	.....	36	
722 95	4,911 85	16,932 02	68 79	37	
23,260 73	59,093 52	181,115 07	178 33	38	
8,776 07	40,622 93	117,218 32	63 37	39	
296 00	557 00	2,646 00	55 63	40	
22,462 78	111,978 77	321,542 04	73 64	41	
8,615 03	29,134 88	54,941 02	.....	42	
3,893 50	9,058 40	42,499 08	62 44	43	
23,614 42	21,765 53	95,326 04	63 40	44	
701 99	9,271 63	27,740 68	222 37	45	
601 66	2,379 12	14,321 67	37 81	46	
.....	4,664 36	15,410 38	98 62	47	
3,054 05	31,425 46	40,630 81	16 68	48	* Engines and power-house plant (e'ectric).
12,513 31	86,178 12	241,845 15	116 43	49	
2,372 14	9,328 09	26,190 23	295 60	50	
75 00	10,011 05	37,665 80	59 16	51	
103 00	3,017 57	12,963 63	41 17	52	
1,746 97	13,591 90	41,035 13	83 42	53	
5,896 68	24,073 98	96,912 72	53 64	54	
30 00	117 00	1,497 48	22 89	55	Only operated for 9 months.
64 38	1,802 12	12,189 72	52 84	56	
1,550 99	7,987 10	37,329 09	73 58	57	
.....	1,633 50	4,052 49	112 56	58	
757 07	5,564 58	14,865 09	123 55	59	
2,080 98	9,448 98	37,449 66	70 79	60	
12,243 28	50,745 01	182,668 03	96 18	61	
17,540 02	83,023 42	214,346 44	81 00	62	
4,514 41	9,615 85	34,228 84	68 70	63	
1,383 75	4,097 25	19,564 68	72 38	64	
1,689 48	10,016 62	35,179 10	66 97	65	
3,647 16	20,319 61	56,222 15	76 95	66	
642 95	10,678 52	22,519 31	112 59	67	
877 82	14,133 56	27,629 10	39 89	68	
7,167 66	66,904 20	119,611 56	123 31	69	
35 42	9,778 08	26,492 76	46 47	70	
2,811 30	1,664 53	58,869 84	65 81	71	
128 08	5,912 34	13,209 13	50 40	72	
208 61	9,140 68	17,562 53	55 18	73	
385 86	7,704 81	26,270 39	44 62	74	

## No. 7.—SUMMARY STATEMENT of Operating Expenses

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.		Working and Repairs of Engines.	
			\$	cts.	\$	cts.
75	Victoria and Sydney.....	16·26	2,551	84	4,073	90
76	Dominion Atlantic, comprising—					
	Windsor and Annapolis..... 87·50	220·50	121,262	08	74,466	13
	Cornwallis Valley..... 14·00					
	Yarmouth and Annapolis..... 87·00					
	Windsor Branch of Intercolonial..... 32·00					
		15,976·75	7,028,103	81	10,399,162	42

## Department of Railways and Canals.

for the Year ended 30th June, 1895—*Concluded.*

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	cents.		
.....	4,144 64	10,770 38	93 49	75	
18,054 69	77,320 96	291,103 86	66 94	76	
2,744,753 87	12,577,648 89	32,749,668 99			

No. 8.—SUMMARY OF ACCIDENTS

Number.	Name of Railway.	Mileage.	Passengers, Employees or Others.	Fell from Cars or Engines.		Jumping on or off Trains or engines when in motion.					
				Killed.	Injured.	Killed.	Injured.				
1	Alberta Railway and Coal Co . . . . .	64 62									
2	Albert Southern . . . . .	16 00									
3	Bay of Quinté Navigation Co . . . . .	4 00									
4	Kingston, Napanee and Western . . . . .	60 82									
5	Baie des Chaleurs . . . . .	80 00	Employee								
6	Brockville, Westport and Sault Ste. Marie . . . . .	45 00									
7	Buctouche and Moncton . . . . .	32 00									
8	Calgary and Edmonton . . . . .	295 07									
9	Canada Atlantic . . . . .	138 00	{	Passengers . . . . .	1	1					
	Central Counties . . . . .	21 00						Employees . . . . .			
10	Canada Eastern . . . . .	136 00	Employee	1							
11	Canada Southern . . . . .	381 06	{	Passengers . . . . .	1	2					
	Canadian Government Railways— Intercolonial . . . . .	1,136 00						Employees . . . . .	1	5	2
12	Prince Edward Island . . . . .	210 60	{	Passengers . . . . .	1	1	2				
								Employees . . . . .	5	1	2
13	Canadian Pacific Railway . . . . .	6,161 00	{	Passengers . . . . .	5	21	9				
								Employees . . . . .	21	1	16
								Others . . . . .	3	5	8
14	Lake Temiscamingue Colonization . . . . .	45 84									
15	Caraget . . . . .	68 00									
16	Carillon and Grenville . . . . .	13 00									
17	Central Ontario . . . . .	104 00									
18	Central of New Brunswick . . . . .	75 00									
19	Cumberland Railway and Coal Co. . . . .	32 00									
20	Drummond County . . . . .	90 53									
21	Elgin and Havelock . . . . .	27 00									
22	Erie and Huron . . . . .	76 75	Others . . . . .								
23	Esquimalt and Nanaimo . . . . .	78 00									
24	Fredericton and St. Mary's Railway and Bridge Co. . . . .	1 33									
25	Grand Trunk . . . . .	3,161 98	{	Passengers . . . . .	1	2	11				
								Employees . . . . .	7	16	7
								Others . . . . .	3	3	5
26	St. Clair Tunnel . . . . .	2 23									
27	Great Northern . . . . .	28 00									
28	Great North-west Central . . . . .	50 93									
29	Hereford . . . . .	53 00									
30	Irondale, Bancroft and Ottawa . . . . .	30 00	Employee . . . . .								
31	Joggins, now Canada Coals and Railway Co. . . . .	12 00									
32	Kent Northern . . . . .	34 00									
33	Kingston and Pembroke . . . . .	112 85									
34	L'Assomption . . . . .	3 00									
35	Lake Erie and Detroit River . . . . .	88 05	Others . . . . .								
	London and Port Stanley . . . . .	23 75									
36	Lotbinière and Mégantic . . . . .	23 34									
37	Lower Laurentian . . . . .	39 50	Employee . . . . .								
38	Manitoba and North-western . . . . .	234 50	Employees . . . . .	1							
	Saskatchewan and Western . . . . .	15 47									
39	Massawippi Valley . . . . .	34 00	{	Employees . . . . .	2						
								Others . . . . .	1		
40	Montford Colonization . . . . .	21 00									
41	Montreal and Atlantic, formerly South-eastern . . . . .	140 10	{	Passengers . . . . .			1				
	Lake Champlain and St. Lawrence Junction . . . . .	61 40						Employees . . . . .	2		
42	Montreal Park and Island (Electric) . . . . .	22 03	{	Passengers . . . . .							
								Others . . . . .			



# Department of Railways and Canals

for the Year ended 30th June, 1895.

At work on or near Track making up Trains.		Putting Arms or Heads out of Wind'ws		Coupling Cars.		Collisions, or by Trains thrown from Track.		Walking, standing, lying or being on Track.		Ex-plosions.		Striking Bridges.		Other Causes.		Totals.		Number.
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
																		1
																		2
																		3
					1												1	4
																		5
																		6
																	2	7
					1			2	2					1		2	2	8
																1	1	9
					8			9	1					1		1	11	10
1	4				16		3	9	1					16		2	51	11
											1					1	6	12
							2		3					4		2	9	13
				5	71	2	12		7				5	5		2	34	14
							11	28	5				6	48		18	174	15
														7		42	25	16
																		17
																		18
																		19
								1	2									20
																1	2	21
																		22
																		23
																		24
2				3	88	1	26	6	1				2	4	22	6	15	25
							1	25	7					16	23	24	171	26
									23							49	66	27
																		28
																		29
							1											30
																	1	31
																		32
																		33
								2										34
																2		35
					1													36
					1												1	37
																	2	38
																		39
																2		40
															1		1	41
					4			1	1					13		20	1	42
			3					2	1							1	3	43
																2	1	44

No. 8.—SUMMARY OF ACCIDENTS

Number.	Name of Railway.	Mileage.	Passengers, Employees or Others.	Fell from Cars or Engines.		Jumping on or off Trains or Engines when in motion.	
				Killed.	Injured.	Killed.	Injured.
43	Montreal, Portland and Boston.....	40 60	Employee.....				
44	Montreal and Vermont Junction.....	23 60	Employee.....		1		1
45	Nelson and Fort Sheppard.....	55 00					
46	New Brunswick and Prince Edward Island.....	36 00					
47	Niagara Falls Park and River Electric Railway.....	13 68	{ Passengers.....				2
			{ Employees.....				1
			{ Others.....				
48	Northern Pacific and Manitoba.....	265 64	{ Employees.....				2
			{ Others.....				
49	Nosbonsing and Nipissing.....	5 50					
50	Nova Scotia Central.....	74 00					
51	Nova Scotia Steel Co., formerly New Glasgow Iron, Coal and Railway Co.....	12 50					
52	Orford Mountain.....	26 50					
53	Ottawa and Gatineau.....	54 60					
54	Ottawa, Arnprior and Parry Sound.....	144 00	{ Employees.....				
			{ Others.....				
55	Ottawa Valley.....	7 00					
56	Parry Sound Colonization.....	40 00					
57	Pontiac Pacific Junction.....	70 60					
58	Phillipsburg Railway and Quarry Co.....	6 75					
59	Port Arthur, Duluth and Western.....	85 50					
60	Qu'Appelle, Long Lake and Saskatchewan.....	253 96	Employee.....				
61	Quebec and Lake St. John.....	242 00	Employees.....				
62	Quebec Central.....	153 50	{ Employee.....				
			{ Others.....				
63	Quebec, Montmorency and Charlevoix.....	30 00					
64	Salisbury and Harvey, including Harvey Branch.....	52 25	Employee.....		1		
65	Shore Line.....	82 50					
66	Stanstead, Shefford and Chambly.....	43 00	Employees.....		1		
67	St. Catharines and Niagara Central.....	12 35	Employee.....				
68	St. Lawrence and Adirondack.....	20 31	Employee.....				
69	South Shore, formerly Montreal and Sorel.....	44 67					
70	Sydney and Louisbourg.....	64 90	Others.....		1		
71	Temiscouata.....	113 00					
72	Thousand Islands.....	4 33	Employee.....				
73	Toronto, Hamilton and Buffalo.....	17 00					
74	United Counties.....	61 00					
75	Victoria and Sydney.....	16 26					
76	Dominion Atlantic, comprising—						
	Windsor and Annapolis.....	87 50					
	Cornwallis Valley.....	14 00					
	Yarmouth and Annapolis.....	87 00					
	Windsor Branch of Intercolonial.....	32 00					
		220 50	Employees.....				
		15,976 75		25	69	20	89

# Department of Railways and Canals.

for the Year ended 30th June, 1895—*Concluded.*

At work on or near Track making up Trains.		Putting Arms or Heads out of Wind'ws		Coupling Cars.		Collisions, or by Trains thrown from Track.		Walking, standing, lying or being on Track.		Explosions.		Striking Bridges.		Other Causes.		Totals.		Number.
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	43	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	44	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	45	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	46	
.....	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	47	
.....	1	.....	.....	.....	7	.....	2	.....	.....	.....	.....	.....	.....	.....	2	2	48	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	15	49	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	50	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51	
.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	52	
.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	3	53	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	54	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	55	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	56	
.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	57	
.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	58	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	59	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	61	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	62	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64	
.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	66	
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	67	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	68	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	69	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	70	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	71	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	72	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	73	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	74	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	75	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76	
3	7	.....	6	9	207	6	68	91	58	.....	.....	1	2	32	152	187	658	

No. 9.—LINES OF RAILWAYS owned by Coal and Iron Mines, for the year ended  
30th June, 1895.

Name.	Length of Rail- way.	Gauge.	No. of Engines.	No. of Waggon.	Remarks.
NOVA SCOTIA.					
Acadia Coal Mining Co. ....	3 00	4 8½	2	25	Known as the Albion Mines Railway. Connecting Drummond Colliery with Intercolonial Railway and Granton Wharf, Pictou Harbour, N.S.
Intercolonial Coal Mining Co. ....	8 00	4 8½	4	171	
Londonderry Iron Co. ....	3 50	4 8½	2	26	From Londonderry Iron Co.'s works to Londonderry Station on I.C.R. From East Mines to East Mines Sta- tion. From Lanark Lime Quarry to Graham Siding, I.C.R. From West Mines to Londonderry Iron Co.'s works.
	4 00	4 8½	.....	.....	
	2 00	4 8½	.....	.....	
	3 00	3 00	2	23	
CAPE BRETON.					
General Mining Association—					
Sydney Mines .....	4 80	4 8½	4	239	This railroad is used for colliery pur- poses only.
Dominion Coal Co.—					
Main Line .....	40 00	4 8½	8	727	These lines are owned and operated by the Dominion Coal Co., under the name of Sydney and Louisbourg Railway.
Victoria Branch .....	5 00	4 8½	2	150	
Caledonia do .....	1 00	4 8½	2	119	
Glacie Bay .....	50	4 8½	1	69	
Reserve .....	10 00	3 0	4	228	
Gowrie .....	1 50	3 6	2	150	
			23	1,682	

# Department of Railways and Canals.

No. 10.—STATEMENT of Aid granted to Railways—Constructed and under Construction—by Governments, for the year ended 30th June, 1895.

Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscriber- tion to Shares or Bonds.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
<b>DOMINION GOVERNMENT.</b>												
Albert (now Salisbury and Harvey).....	*	29,665 45										
Albert Southern.....					50,460 00							
Atlantic and North-west.....					a 1,422,000 00							
Baie des Chaleurs.....					620,000 00							
Belleville and North Hastings—Grand Junction (now in Grand Trunk).....					21,888 00							
Beauharnois Junction.....					62,400 00							
Brantford, Waterloo and Lake Erie (now Toronto, Hamilton and Buffalo).....					57,600 00							
Brockville, Westport and Sault Ste. Marie.....					192,000 00							
Buteauche and Moncton.....					102,400 00							
Canada Atlantic.....					282,355 20							
Canada Central.....					1,525,250 00							
Canada Eastern (formerly Northern and Western of New Brunswick).....					b 371,639 84							
Canadian Pacific.....					56,014,163 78							
do Revelstoke to Arrow Lake.....					80,000 00							
Carquet.....					224,000 00							
Central of New Brunswick.....					+ 207,251 54							
Columbia and Kootenay.....					88,800 00							
Cornwallis Valley (now in Dominion Atlantic).....					44,800 00							
Cumberland Railway and Coal Company.....					39,850 00							
Drummond County.....					297,920 00							
Dominion Line Company (now in Hereford Ry).....					15,360 00							
Elgin and Havelock.....					c 82,652 82							
Erie and Huron.....					96,000 00							
Esquimaux and Nanaimo.....					750,000 00							
Fredericton and St. Mary's Railway and Bridge Company.....					300,000 00							
Grand Trunk.....					15,142,633 33							
do Georgian Bay and Lake Erie, Owen Sound Branch.....					48,000 00							
Great Eastern.....					104,845 00							
Great Northern (exclusive of Ottawa Valley Section).....					297,088 00							
Guelph Junction.....					46,000 00							
Harvey Branch.....					9,600 00							
Hereford.....					155,200 00							
Hereford.....					55,007,939 40							
Intercolonial.....					156,800 00							
International (Atlantic and North-west) C. P. R.....												

\* \$14,665 45 rails. † Including \$83,612 54 rails to St. Martin's and Upham Ry. a Payable in half-yearly instalments of \$35,550 each for 20 years, from 1st July, 1889. b Including \$24,439 89, rails to Chatham Branch. c Including \$44,252 82, rails.

## No. 10.—STATEMENT of Aid Granted to Railways by Governments—Continued.

Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscrip- tion to Shares or Bonds.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
DOMINION GOVERNMENT—Continued.												
Irondale, Bancroft and Ottawa.....												
Joggins (now Canada Coals and Railway Co.).....												
Kent Northern.....												
Kingston, Napanee and Western.....												
Kingston and Pembroke.....												
L'Assomption.....												
Lake Erie and Detroit River.....												
Lake Temiscamincque Colonization.....												
Leamington and St. Clair (now in Canada Southern).....												
Lothbère and Mégantic.....												
Lower Laurentian.....												
Montfort Colonization.....												
Montreal and Lake Maskinongé.....												
Montreal and Champlain Junction.....												
Montreal and Ottawa.....												
Montreal and Sorel (now South Shore).....												
Montreal and Western.....												
Nakup and Slocan.....												
New Brunswick and Prince Edward Island.....												
New Glasgow Iron and Coal Co.....												
Northern and Pacific Junction.....												
Nova Scotia Central.....												
Nova Scotia Southern.....												
Ontario and Quebec.....												
Orford Mountain.....												
Ottawa, Arnprior and Parry Sound.....												
Ottawa and Gatineau.....												
Ottawa Valley (formerly part of Great Northern).....												
Parry Sound Colonization.....												
Philipsburg Railway and Quarry Co.....												
Pontiac Pacific Junction.....												
Pontiac and Renfrew.....												
Port Arthur, Duluth and Western.....												
Prince Edward Island.....												
Quebec and Lake St. John.....												
Quebec Central.....												

+ Rails.

# Department of Railways and Canals.

<p>Quebec, Montmorency and Charlevoix.                      Quebec, Montreal, Ottawa and Occidental, North Shore, Montreal to Quebec                      do do do                      do do Montreal to Ottawa.                      St. Catharines and Niagara Central.                      St. Louis and Richibucto.                      St. John Bridge and Railway extension.                      St. John Valley and Riviere du Loup.                      St. Lawrence and Adirondack.                      St. Clair Tunnel.                      Shuswap and Okanagan                      South Norfolk.                      Sydney and Louisbourg                      Temiscouata.                      Thousand Islands.                      Tobique Valley                      Toronto, Grey and Bruce.                      United Counties.                      Waterloo Junction.                      West Ontario Pacific.                      Western Counties (now in Dominion Atlantic).                      Windsor and Annapolis (now in Dominion Atlantic).</p>	<p>500,000 00</p>	<p>96,000 00                      +954,000 00                      1,500,000 00                      +1,440,000 00                      147,200 00                      22,400 00                      48,000 00                      65,001 60                      375,000 00                      163,200 00                      54,400 00                      89,600 00                      646,400 00                      54,400 00                      182,400 00                      14,656 00                      204,800 00                      32,800 00                      60,000 00                      500,000 00                      1,193,369 00</p>	<p>137,966,144 63</p>
<p>+ Dominion Government pays to Quebec Government 5 per cent interest per annum on these two amounts.</p>			
<p style="text-align: center;">ONTARIO GOVERNMENT.</p> <p>Brantford, Norfolk and Port Burwell, in Grand Trunk.                      Canada Atlantic.                      Canada Central.                      Canada Southern.                      Central Ontario.                      Cobourg, Blairton and Marmora.                      Credit Valley                      Erie and Huron.                      Grand Junction and Belleville &amp; North Hastings                      Grand Trunk, Georgian Bay and Lake Erie.                      Hamilton and North-western.                      Irondele, Bancroft and Ottawa.                      Kingston and Pembroke                      Kingston, Napanee and Western.                      London, Huron and Bruce.                      Midland                      Montreal and Ottawa                      Northern.                      North Simcoe                      Ottawa, Arnprior and Parry Sound                      Parry Sound Colonization                      Port Arthur, Duluth and Western                      Toronto and Nipissing                      Lake Simcoe Junction.</p>	<p>26,000 00</p>	<p>68,000 00                      270,000 00                      1,479,000 00                      147,858 65                      126,500 00                      18,740 00                      531,000 00                      83,000 00                      224,660 00                      336,000 00                      565,020 00                      120,000 00                      456,493 00                      90,000 00                      178,630 00                      168,350 00                      100,000 00                      196,188 00                      83,300 00                      411,000 00                      148,500 00                      255,571 00                      105,212 00                      53,000 00</p>	<p>16,030,633 05</p>





# Department of Railways and Canals.

Quebec, Montreal, Ottawa and Occidental, including North Shore	3,722,956 00		727,000 00	
Quebec, Montmorency and Charlevoix			192,000 00	
South-eastern (now Montreal and Atlantic)			497,007 10	
St. Lawrence and Adirondack			65,216 00	
Temiscouata			306,050 00	
United Counties			210,000 00	
Waterloo and Magog (now Atlantic and North-west—C. P. R.)			92,000 00	
	3,722,956 00			12,740,159 27
<b>NEW BRUNSWICK GOVERNMENT.</b>				
Albert (now Salisbury and Harvey)			455,000 00	
Albert Southern			32,500 00	
Buctouche and Moncton			96,000 00	
Caraquez			180,000 00	
Central of New Brunswick			139,000 00	
Chatham Branch (now part of Canada Eastern)			50,000 00	
Fredericton			280,000 00	
Grand Southern (now Shore Line)			413,000 00	
Harvey Branch			9,000 00	
Kent Northern			135,200 00	
New Brunswick			76,000 00	
New Brunswick and Canada			575,000 00	
New Brunswick and Prince Edward Island			105,000 00	
Northern and Western (now Canada Eastern)			344,000 00	
Elgin, Peticoodiac and Havelock (now Elgin and Havelock)			107,500 00	
St. Martin's and Upham (now Central of New Brunswick)			145,000 00	
St. John Bridge and Railway Extension			5,500 00	
St. John and Maine			880,000 00	
St. John Valley and Rivière du Loup			195,000 00	
St. Louis and Richibucto			21,000 00	
Temiscouata			66,000 00	
Tobique Valley			70,000 00	
				300,000 00
		4,356,300 00		
<b>NOVA SCOTIA GOVERNMENT.</b>				
Cornwallis Valley (now in Dominion Atlantic)			44,800 00	
Joggins (now Canada Coals and Railway Co.)			35,200 00	
New Glasgow Iron, Coal and Railway Co. (now Nova Scotia Steel Co.)			40,000 00	
Nova Scotia Central			432,961 08	
Nova Scotia Southern			307,200 00	
Springhill and Parrsboro' (Gumberland Railway and Coal Co.)			173,650 00	
Stewarke Valley and Lansdowne			236,800 00	
Sydney and Louisbourg, Dominion Coal Co.			87,808 00	
Western Counties (now in Dominion Atlantic)			679,197 45	
		2,036,916 53		

No. 10.—STATEMENT of Aid granted to Railways by Governments—Concluded.

Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
<b>MANITOBA GOVERNMENT.</b>													
Canadian Pacific.....													
Manitoba and North-western.....	649,934	27					237,377	50					
Manitoba South-western Colonization.....	900,000	00					533,300	00					
Northern Pacific and Manitoba.....													
Saskatchewan and Western.....	50,000	00											
Winnipeg and Hudson Bay, (now Winnipeg Great Northern).....	256,000	00											
			1,855,934	27									
<b>BRITISH COLUMBIA GOVERNMENT.</b>													
Canadian Pacific.....							37,500	00					
Total aid granted by Governments.....			21,635,523	32					105,147,236	17		300,000	00

# Department of Railways and Canals.

No. 10.—STATEMENT of Aid granted to Railways by Municipalities, 30th June, 1895.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or bonds.	Total.
		\$	cts.	\$	cts.	\$	cts.
<b>ONTARIO.</b>							
Deseronto	Bay of Quinté Ry. & Navigation Co.			36,000 00		5,000 00	
Town of Brockville	Brockville, Westport and Sault Ste. Marie			7,000 00			
	do			15,000 00			
Elizabethtown	do			5,000 00			
Rear of Yonge and Escott	do			28,000 00			
Rear of Leeds and Lansdowne	do			6,000 00			
Bastard and Burgess	do			4,000 00			
South Crosby	do			15,000 00			
Village of Newboro'	do						
North Crosby	do						
Various Municipalities							
Renfrew	Buffalo and Lake Huron					30,000 00	
Horton	Canada Central, now Can. Pacific					7,500 00	
Admaston	do					5,000 00	
Canada Southern							
County of Elgin	do			200,000 00			
Township of Townsend	do			30,000 00			
do Durham	do			15,000 00			
do Anderson	do			15,000 00			
Town of St. Thomas	do			25,000 00			
Township of Malden	do			15,000 00			
Town of Amherstburg	do			15,000 00			
South Norwich	do			7,500 00			
Sault Ste. Marie							
Northumberland and Durham	Canadian Pacific					322,500 00	
West Hawkesbury	Cobourg, Blairton and Marmora					20,000 00	
Yankteek Hill	Central Counties			15,000 00		113,500 00	
Dalketh	do			1,200 00			
Rockland	do			800 00			
Clarence	do			6,000 00			
	do			1,000 00			
Central Ontario							
Town of Trenton	do			10,000 00			
Wellington Village	do			2,500 00			
Town of Picton	do			21,000 00			
County of Prince Edward	do			60,000 00			
							42,500 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities.—Continued.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—Continued.							
County of Oxford	Credit Valley			200,000 00			
do Wellington	do			135,000 00			
do Waterloo	do			110,000 00			
do Peel	do			75,000 00			
do Halton	do			70,000 00			
City of Toronto	do			350,000 00			
do St. Thomas	do			50,000 00			
Town of Milton	do			30,000 00			
do Brampton	do			20,000 00			
do Ingersoll	do			10,000 00			
do Orangeville	do			15,000 00			
Village of Streetsville	do			20,000 00			1,085,000 00
County of Kent	Erie and Huron			155,000 00			
City of Chatham	do			30,000 00			
Town of Sarnia	do			16,000 00			
Village of Dresden	do			20,500 00			
do Blenheim	do			11,000 00			
do Wallaceburg	do			11,000 00			
Township of Sombra	do			14,000 00			
do Woodhouse	Grand Trunk, Georgian Bay and Lake Erie			15,000 00			257,500 00
Town of Simcoe	do			10,000 00			
Township of South Norwich	do			10,000 00			
do North	do			40,000 00			
Town of Woodstock	do			25,000 00			
Township of East Oxford	do			25,000 00			
do Woodstock	do			60,000 00			
Town of Woodstock	do			120,000 00			
do Stratford	do			40,000 00			
County of Perth	do			10,000 00			
Township of Mornington	do			15,000 00			
do Elma	do			30,000 00			
Town of Listowel	do			25,000 00			
Township of Wallace	do			10,000 00			
Town of Palmerston	do			30,000 00			
Township of Minto	do			25,000 00			

# Department of Railways and Canals.

Town of Harriston.....	do	.....	20,000 00	
Township of Normanby.....	do	.....	80,000 00	
do Benbuck.....	do	.....	65,000 00	
do Brant.....	do	.....	20,000 00	
do Elderslie.....	do	.....	45,000 00	
do Arran.....	do	.....	45,000 00	
do Amabel.....	do	.....	43,000 00	
do Keppel.....	do	.....	32,000 00	
do Albemarle.....	do	.....	10,000 00	
Town of Mount Forest.....	do	.....	22,000 00	
Township of Egremont.....	do	.....	60,000 00	
Township of Glenelg.....	do	.....	20,000 00	
Town of Durham.....	do	.....	32,000 00	929,000 00
Town of Owen Sound.....	Grand Trunk, Owen Sound Branch	.....	75,000 00	
Township of Sarawak.....	do	.....	7,500 00	
do Keppel.....	do	.....	3,000 00	85,500 00
City of Belleville.....	Grand Junction.....	.....	150,000 00	
Village of Sterling.....	do	.....	5,000 00	
Township of Rawdon.....	do	.....	15,000 00	
do Seymour.....	do	.....	35,000 00	
do Percy.....	do	.....	8,000 00	50,000 00
do Asphodel.....	do	.....		
City of Guelph.....	Guelph Junction.....	.....		213,000 00
County of Frontena.....	Kingston and Pembroke.....	.....	170,000 00	
City of Kingston.....	do	.....	318,000 00	
Village of Renfrew.....	do	.....	3,000 00	491,000 00
City of Hamilton.....	Hamilton and North-western.....	.....	99,733 00	
Village of Georgetown.....	do	.....	11,289 00	
County of Peel.....	do	.....	30,974 00	
do Simcoe.....	do	.....	354,007 00	
Town of Collingwood.....	do	.....	12,084 00	
do Waco house.....	do	.....	24,592 00	
do Adjala.....	do	.....	20,740 00	
do Fessa.....	do	.....	2,500 00	
do Toronto.....	do	.....	2,500 00	
do Muhmur.....	do	.....	10,000 00	
Village of Alliston.....	do	.....	5,000 00	
Township of Nottawasaga.....	do	.....	8,000 00	
do South Colchester.....	Lake Erie and Detroit River.....	.....	20,335 00	599,805 00
do Garfield.....	do	.....	20,000 00	
Village of Kingsville.....	do	.....	15,000 00	
Township of Romney.....	do	.....	10,000 00	
do	do	.....	10,000 00	

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Continued.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>ONTARIO—Continued.</b>							
Township of East Tilbury .....	Lake Erie and Detroit River .....			5,000 00			
do Raleigh .....	do do .....			10,000 00			
Village of Blenheim .....	do do .....			5,000 00			
do Ridgetown .....	do do .....			12,500 00			87,500 00
Township of East Gwillimbury .....	Lake Simcoe Junction .....			45,000 00			
do North do .....	do do .....			20,000 00			
do Georgina .....	do do .....			20,000 00			
do Whitechurch .....	do do .....			15,000 00			
Village of Leamington .....	Leamington and St. Clair, in Canada Southern .....			12,000 00			100,000 00
do do .....	do do .....			15,000 00			
do do .....	do do .....			6,000 00			
do do .....	do do .....			15,000 00			
do do .....	do do .....			17,500 00			
Township of London .....	London, Huron and Bruce .....			25,000 00			
do Stephen .....	do do .....			15,000 00			
do Osborne .....	do do .....			15,000 00			
do Hay .....	do do .....			15,000 00			
do Goderich .....	do do .....			25,000 00			
do E. Wawanosh .....	do do .....			25,000 00			
do Hallet .....	do do .....			10,000 00			
do Tuckersmith .....	do do .....			5,000 00			
do Turnberry .....	do do .....			10,000 00			
do Morris .....	do do .....			10,000 00			
do Stauley .....	do do .....			20,000 00			
Village of Clinton .....	do do .....			20,000 00			
do Exeter .....	do do .....			10,000 00			
do Kincardine .....	do do .....			10,000 00			
do Wigan .....	do do .....			9,000 00			
do do .....	do do .....			100,000 00			
City of London .....	do do .....						311,500 00
Township of Thorah .....	Midland .....			50,000 00			
Town of Port Hope .....	do do .....			30,000 00			
Townships of Orillia and Matchedash .....	do do .....			12,500 00			
Town of Orillia .....	do do .....			12,500 00			
Township of Tay .....	do do .....			21,370 85			
Village of Oranmore .....	do do .....			2,000 00			

# Department of Railways and Canals.

Township of Mara.....	do	12,500 00			
Town of Peterborough.....	do	4,000 00			144,870 85
do Napanee.....	Kingston, Napanee and Western.	30,000 00			
Village of Newburgh.....	do	7,500 00			
Township of Camden.....	do	30,000 00			
do Sheffield.....	do	15,000 00			
do Loughborough.....	do	5,000 00			
City of Kingston.....	do	75,000 00			162,500 00
do Toronto.....	Northern.....	100,000 00			190,000 00
County of Simcoe.....	do	30,000 00			200,000 00
Town of Barrie.....	do	12,500 00			
do Orillia.....	do	99,480 00			
Townships of Collingwood, Euphrasia and St. Vincent.....	do	25,000 00			241,980 00
Town of Smith's Falls.....	Ontario and Quebec.....	10,000 00			
do Merrickville.....	do	15,000 00			
Township of West Winchester.....	do	2,500 00			
do Thamesford.....	do	100,000 00			52,300 00
City of Ottawa.....	Ottawa, Arnprior and Parry Sound.	4,392 00			
Township of Huntley.....	do				2,000 00
do Hagarty.....	do				
Town of Arnprior.....	do				104,392 00
do Port Arthur.....	do	25,000 00			36,000 00
Municipality of Neebing.....	Port Arthur, Duluth and Western.	15,000 00			
Town of Simcoe.....	do	5,000 00			40,000 00
Township of Charlotteville.....	South Norfolk.....	20,000 00			
do South Walsingham.....	do	40,000 00			
City of St. Catharines.....	St. Catharines and Niagara Central	80,000 00			65,000 00
Town of Thorold.....	do	80,000 00			80,000 00
City of Ottawa.....	do	200,000 00			20,000 00
Town of Prescott.....	St. Lawrence and Ottawa.....	100,000 00			100,000 00
do Gananoque.....	do	300,000 00			60,000 00
City of Toronto.....	Thousand Islands.....	150,000 00			30,000 00
Township of Scarborough.....	Toronto and Nipissing.....	30,000 00			30,000 00
do Markham.....	do	50,000 00			10,000 00
do Uxbridge.....	do	10,000 00			50,000 00
do Scott.....	do	50,000 00			44,000 00
do Brock.....	do				
do Eldon.....	do				
					10,000 00
					80,000 00
					20,000 00
					60,000 00
					30,000 00
					100,000 00
					90,000 00
					32,000 00





# Department of Railways and Canals.

Township of Woolwich.....	Waterloo Junction.....	28,000 00		
Section of Peel.....	do.....	7,000 00		
Village of Elmira.....	do.....	10,000 00		
do St. Jacobs.....	do.....	2,000 00		47,000 00
Fergus.....	Wellington, Grey and Bruce.	10,000 00		
Peel.....	do.....	40,000 00		
Elora.....	do.....	10,000 00		
Maryboro'.....	do.....	40,000 00		
Nichol.....	do.....	10,000 00		
Wallace.....	do.....	35,000 00		
Minto.....	do.....	65,000 00		
Bruce.....	do.....	278,000 00		
Howick.....	do.....	20,000 00		
Listowel.....	do.....	15,000 00		
Grey.....	do.....	35,000 00		
Elma.....	do.....	30,000 00		
Morris.....	do.....	30,000 00		
W. Wawanosh.....	do.....	18,000 00		
Ashfield.....	do.....	10,000 00		
Turnbury.....	do.....	28,000 00		
Kincardine.....	do.....	8,000 00		
City of London.....	West Ontario Pacific.....			
Town of Whitby.....	Whitby, Fort Perry and Lindsay	70,000 00		
do Township of Whitby.....	do.....	15,000 00		
do Reach.....	do.....	30,000 00		
do Scougog.....	do.....	2,000 00		
County of Victoria.....	do.....	85,000 00		
Village of Port Perry.....	do.....	20,000 00		
Manufacturing Co.....	do.....	94 93		
			553,000 00	
				222,094 93
				9,481,142 78
				749,500 00
Caplin.....	Baie des Chaleurs.....	5,000 00		
New Richmond.....	do.....	6,000 00		
Maria.....	do.....	6,000 00		
Carleton.....	do.....	6,000 00		
Nouvelle and Shoalbred.....	do.....	6,000 00		
New Carlisle.....	do.....	6,000 00		
Paspebiac.....	do.....	3,000 00		
Hamilton.....	do.....	2,500 00		
Farnham.....	Canadian Pacific.....			40,500 00
Town of Nicolet.....	Drummond County.....	10,000 00		20,000 00
Municipality of St. Leonard.....	do.....	5,000 00		
Parish of St. Antoine.....	Great Eastern.....	10,000 00		15,000 00
do St. Denis.....	do.....	10,000 00		20,000 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Continued.

Municipalities.	Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
		£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.
QUEBEC.—Continued.													
Parish of Ste. Sophie.....	Great Northern.			1,000	00			1,000	00				
Village of New Glasgow.....	do			2,000	00			2,000	00				
County of Compton.....	International, now in Atlantic and North-west, C.P.R.									225,000	00		
St. Pie.....	Lake Champlain & St. Lawrence.					20,000	00						
L'Ange Gardien.....	do					10,000	00						
St. Paul.....	do					6,000	00						
Philipsburg.....	do					15,000	00						
Town of L'Assomption.....	L'Assomption.											51,000	00
City of Three Rivers.....	Lower Laurentian.											1,500	00
Ascot.....	Massawippi Valley.											40,000	00
Hatley.....	do											25,000	00
Township of Melbourne and Brompton Gore.....	Missisquoi & Black River Valley, now in Atlantic & North-west, C.P.R.												
Township of Ely.....	do											25,000	00
do North Stakely.....	do											20,000	00
do Bolton.....	do											20,000	00
Orunstown.....	Montreal & Champlain Junction Grand Trunk.												
St. Constant.....	do			10,000	00								
St. Philomene.....	do			1,800	00								
LaPrairie.....	do			2,820	00								
Huntingdon.....	do			1,904	00								
St. Isidore.....	do			3,000	00								
Dewittsville.....	do			1,500	00								
	do			750	00								
Municipality of Rigaud.....	Montreal and Ottawa.			2,000	00							21,774	00
Parish of Rigaud.....	do			800	00								
Point Fortune.....	do			2,500	00								
Chambly Canton.....	Montreal, Portland and Boston.					15,000	00						
do Basin.....	do					10,000	00					5,300	00
County of Pontiac.....	Pontiac Pacific Junction.			100,000	00								
Village of Shawville.....	do			1,000	00								
												101,000	00

# Department of Railways and Canals.

Village of St. Andrews.....	Ottawa Valley.....	50,000 00	10,000 00	450,000 00
Parish of Sherbrooke.....	Quebec Central.....	25,000 00		
do Dudswell.....	do.....	25,000 00		
do Weedon.....	do.....	3,000 00		
Township of Garthby.....	do.....		103,000 00	
City of Quebec.....	Quebec and Lake St. John.....		12,000 00	
Town of Chicoutimi.....	do.....	1,000,000 00		
City of Montreal.....	do.....	1,000,000 00		
do Quebec.....	do.....	100,000 00		
do Three Rivers.....	do.....	200,000 00		
County of Ottawa.....	do.....			
St. Sauveur de Québec.....	do.....	25,000 00		
Côte St. Louis.....	do.....	25,000 00		
Village of Ste. Therese.....	do.....	12,000 00		
Parish of do.....	do.....	12,000 00		
do St. Jérôme.....	do.....	10,000 00		
Village of do.....	do.....	15,000 00		
St. Scholastique.....	do.....	10,000 00		
St. Andrews.....	do.....	25,000 00		
St. Jérusalem d'Argenteuil.....	do.....		25,000 00	
County of Bromme.....	South-eastern (now Montreal and Atlantic).....	2,434,000 00		
Township of Bromme.....	do.....			50,000 00
do Sutton.....	do.....			50,000 00
do Potton.....	do.....			63,000 00
do Farnham.....	do.....			25,000 00
Village of West Farnham.....	do.....			20,000 00
do East.....	do.....			5,000 00
do Waterloo.....	do.....			5,000 00
do Drummondville.....	do.....			30,000 00
County of Drummond.....	do.....			15,000 00
Township of Wickham.....	do.....			10,000 00
do St. Germain.....	do.....			15,000 00
do Sorel.....	do.....			40,000 00
Village of Actonvale.....	do.....			15,000 00
do Roxton Falls.....	do.....			15,000 00
Township of Roxton.....	do.....			20,000 00
do Shefford.....	do.....			50,000 00
do West Wickham.....	do.....			10,000 00
Fraserville.....	Temiscouata.....			528,000 00
Municipality of Magog.....	Waterloo and Magog, now Achatie and North-west, C.P.R.....		25,000 00	15,000 00
		2,434,000 00	482,074 00	1,393,000 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Concluded.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<b>NEW BRUNSWICK.</b>							
Hillsboro', Hopewell and Harvey Parishes	Albert, now Salisbury and Harvey.			40,000 00			
Coverdale, Hillsboro', Hopewell and Harvey Parishes.	do			30,000 00			
City of St. John.	Canadian Pacific.			50,000 00	70,000 00		
City of Fredericton	Fredericton.			30,000 00	40,000 00		
County of York.	do				80,000 00		
Parish of St. George.	Grand Southern, now Shore Line.	2,000 00					
do	do	500 00					
do	do	500 00					
do	do		3,000 00				
do	do			12,000 00			
do	do			11,000 00			
do	do			12,500 00			
do	do			22,000 00			
do	do			13,000 00			
Town of Chatham.	Northern and Western of New Brunswick, now Canada Eastern.		20,000 00				
Parish of Elgin.	Elgin, Petitcodiac and Havelock.						
City of St. John.	St. John and Maine.						60,000 00
<b>NOVA SCOTIA.</b>							
County of King's.	Cornwallis Valley.						
Counties of Yarmouth, Digby and Annapolis.	Western Counties, now Dominion Atlantic.						27,085 00
County of Pictou	New Glasgow Iron, Coal and Railway Co						150,000 00
do	St-wiacke Valley and Lunenburg.						4,000 00
do	Nova Scotia Southern.			50,000 00			8,000 00
					273,500 00		60,000 00
							60,000 00

# Department of Railways and Canals.

do	do	25,000 00	
do	do	5,000 00	80,000 00
<b>MANITOBA.</b>			
City of Winnipeg.....	Canadian Pacific.....	200,000 00	
County of Selkirk.....	do	35,000 00	
Township of St. Andrews.....	do	35,000 00	
Town of Morris.....	do	100,000 00	
County of Westborne.....	Manitoba and North-western.....	75,000 00	370,000 00
Town of Portage la Prairie.....	do	50,000 00	
do Minnedosa.....	do	30,000 00	
Municipality of Shoal Lake.....	do	20,000 00	
do Birdie.....	do	40,000 00	
do Strathclair.....	do	600 00	
Rapid City.....	Saskatchewan and Western.....	215,600 00	10,000 00
<b>BRITISH COLUMBIA.</b>			
City of New Westminster.....	Canadian Pacific.....		595,600 00
<b>NORTH-WEST TERRITORIES.</b>			
Qu'Appelle.....	Wood Mountain and Qu'Appelle.....		37,500 00
			Lapsed.

No. 10.—Summary of Aid granted to Railways, constructed and under construction, by Governments and Municipalities, 30th June, 1895.

SUMMARY.

	Loan.		Total.		Bonds.		Total.		Subscription to Shares or Bonds.		Total.		Grand Total.		
	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	
<i>Governments.</i>															
Dominion.....	16,030,633	05	137,966	144	63	153,996,777	68								
Ontario.....	26,000	00	7,239,538	24		7,265,538	24								
Quebec.....	3,722,956	00	12,740,159	27		16,463,115	27								
New Brunswick.....			4,356,300	00		300,000	00								
Nova Scotia.....			2,036,916	53		2,036,916	53								
Manitoba.....	1,855,934	27	770,677	50		2,626,611	77								
British Columbia.....			37,500	00		37,500	00								
			21,635,523	32		165,147,236	17							187,082,759	
<i>Municipalities.</i>															
Ontario.....	553,000	00	9,481,142	78		749,500	00								
Quebec.....	2,434,000	00	482,074	00		1,393,000	00								
New Brunswick.....	23,000	00	273,500	00		60,000	00								
Nova Scotia.....			269,685	00		269,685	00								
Manitoba.....			595,600	00		595,600	00								
British Columbia.....			37,500	00		37,500	00								
North-west Territories.....			3,010,000	00								2,202,500	00	16,352,001	
			24,645,523	32		176,286,737	95					2,502,500	00	203,434,761	

APPENDIX No. 17.

MEMORANDUM ON RAILWAY PROGRESS IN THE DOMINION OF CANADA  
AND ITS BENEFICIAL EFFECT ON THE ECONOMIC DEVELOPMENT  
OF THE COUNTRY, MORE PARTICULARLY IN THE PROVINCES  
AND TERRITORIES WEST OF LAKE SUPERIOR.

By the HON. SIR CHARLES TUPPER, BARONET, G.C.M.G., C.B.,

HIGH COMMISSIONER FOR CANADA IN LONDON, FORMERLY MINISTER OF RAILWAYS AND  
CANALS, MINISTER OF FINANCE OF THE DOMINION OF CANADA, ETC., ETC.

*(See the accompanying Map of the Railway System of Canada.)*

The endeavour to trace in the history of the development of Canada the proportion of its advance fairly attributable, directly, to the extension of its railway system, is a matter of difficulty, in view of the exceptional facilities for communication by water which the country possesses, and which, even in the present day, must be regarded as a main factor of its commercial prosperity. A water way which extends from the mouth of the River St. Lawrence to Port Arthur at the head of Lake Superior, a distance of 2,260 miles (3,637 kilometres) made navigable by a system of canals, has constituted an independent element of advancement which must be considered in dealing with the general question, while immense internal rivers and innumerable lakes have borne in the past, and still bear, their share in the progress of the country. *The proximity of these water ways, however, formed the limitation to general settlement.*

It is not until the vast extent of territory west of Lake Superior is reached, that the paramount importance of railway communication, if these great fertile plains and valleys are ever to be utilized for the public good, is realized. The extent of this section may be understood from the single statement that it has required the construction of 2,257 miles (3,632 kilometres) of railway to span the distance between Lake Superior and the waters of the Pacific.

But though this generous and ready means of water communication exists, it exists only for the warmer portions of the year, and for the long winter months, from the end of November to the end of March, the whole interior of the country would be in a state of isolation, and trade would be dormant or paralysed were it not for the railways, which now, from east to west, with their ramifications to the north and south, pierce the country in every direction, collecting and distributing the products of the forest, the field, and the factory, through the length and breadth of the land, and giving ready access to and from all the centres of population, without heed to the restrictions and barriers of the winter climate. For Canada, in a greater degree than for any other country, the presence of the railway is for this reason absolutely essential to the maintenance of its prosperity and the continuance of its growth.

*Important Epochs.*

For the purpose of briefly indicating the beneficial effects produced in this country by railway construction, it will be well, perhaps, to glance at Canada's position at three or four epochs, bearing in mind always that the results shown are not in all cases clearly defined or definable as direct results of railway enterprise,

and that other causes may have been at work contemporaneously to produce them : to the railway nevertheless is unquestionably due a large and perhaps the largest share of the present status.

These epochs may be the following :

- 1st. The commencement of railway construction in Canada in 1836.
- 2nd. The completion of the Grand Trunk Railway from Rivière du Loup to Sarnia, in 1860.
- 3rd. The Confederation of Canada, in 1867.
- 4th. The completion of the Intercolonial Railway main line from Halifax to Lévis, in 1876.
- 5th. The commencement, in 1877, and the completion, in 1886, of the Canadian Pacific Railway main line from Montreal to the Pacific.
- 6th. The present date, 1894-1895.

It must be remembered that Canada, as at present constituted, is of recent birth, the following being the dates of important changes. From 1791 to 1841 four distinct divisions exist with separate governments, laws and archives, viz. :—Nova Scotia, New Brunswick, Lower Canada (now Quebec) and Upper Canada (now Ontario.) In 1841 Upper and Lower Canada were united under the name of the province of Canada, In 1867 the confederation of these four provinces occurred ; since which date the gathering of statistical information is less difficult. In 1870 the North-west Territories were acquired and the province of Manitoba was created. In 1871 British Columbia and in 1873 Prince Edward Island joined the Dominion.

#### *First Railway Built.*

The first railway enterprise in the country was the construction of a short section of road, 46 miles long, between Laprairie and St. Johns, in what is now the province of Quebec but at that time called Lower Canada. This was opened in July, 1836, with horse traction, locomotive power being adopted the following year. It was part of the Montreal and Champlain Railway, which was completed in 1851, giving communication between Caughnawaga, on the south side of the River St. Lawrence, above Montreal, and Rouse's Point near the boundary line of the United States.

Between 1837 and 1850 but little was done in the direction of railway works, there being in the year 1847 only 54 miles (87 kilometres) of railway in operation, all in Lower Canada. The principal means of communication was by water, which was made available by the construction of the system of canals on the River St. Lawrence, opened in 1848, the Welland Canal, giving access from Lake Ontario to Lake Huron, having been opened in 1829.

#### *Grand Trunk Railway commenced.*

The decade between 1850 and 1860, however, was one of considerable activity. It saw the commencement, in 1852, and completion, in 1860, of the Grand Trunk Railway system, a total of 872 miles (1,403 kilometres) in Canada ; the main line extending from Rivière du Loup, on the east, to Sarnia on the Detroit River, the western limit.

The portion between Montreal and Toronto was completed and opened by the middle of 1856, while by the construction of the Victoria Bridge over the St. Lawrence, opened in December, 1859, direct railway communication was had with the southern terminus of the line at the harbour of Portland ; in the state of Maine, U.S.

#### *Intercolonial Railway surveys.*

In the provinces of Nova Scotia and New Brunswick not much, it is true, was actually done in railway construction, but the importance of a line of railway which



## Department of Railways and Canals

should connect the Canadian Atlantic seaboard with Quebec, a scheme first proposed as early as 1832, was so manifest that in 1836-1837, a survey was made of the country between St. Andrews, on the Bay of Fundy, and Lévis, opposite Quebec, towards the expense of which the Imperial Government contributed £10,000 (250,000 francs). In view of the objections of the United States, based on the unsettled boundary between Canada and the state of Maine, the question was not settled until 1842, when the decision was adverse to Canada, and necessitated a new survey, made in 1844, which, by a considerable detour, avoided the territory in dispute, which had been crossed by the original location.

In New Brunswick, in the year 1852, the railway between St. John and Shediac, on the Gulf of St. Lawrence, was commenced, and was opened for traffic in 1860. The length was 108 miles (174 kilometres).

Meantime, in the province of Nova Scotia a line of railway, commenced in 1854 and completed by the close of 1858, had been constructed between Halifax and Truro, 61 miles (98 kilometres).

This was the nucleus of what is now the Intercolonial Railway.

### *Railway statistics of 1860.*

In the year 1860 a systematic attempt was made for the first time by Government to collect and arrange information respecting railway matters. In that year there were 16 railway companies, operating, in the province of Canada, 1,880 miles (3,026 kilometres), or with the addition of the connecting lines owned by them in the United States, a total of 2,107 miles (3,391 kilometres). Of this total, the cost of 1,974 miles (3,176 kilometres), with equipment, was \$97,179,641 (485,898,208 francs) towards which the Government had contributed assistance to the extent of \$20,246,247 (101,231,235 francs). In the year 1860, 2,030 miles (3,267 kilometres) earned \$1,722,666 (33,613,332 francs), the expenses of their operation being \$5,675,511 (28,377,557 francs). The number of passengers was 1,825,755, and 1,459,446 tons (1,459,446 tons met.) of freight were carried; as to freight, however, 5 lines of minor importance, comprising 91 miles (146 kilometres), do not make returns. The average speed of express trains was 24.3 miles (39.1 kilometres) per hour, including stops. The total number of persons employed on all the railways was 6,606. At the end of the year 1859 there were on all the railways 384 locomotives. The Grand Trunk Railway owned 217. The rails were of iron, all single track, and the fuel used for the locomotives was wood.

### *Intercolonial Railway commenced.*

By the Act of 1867 confederating the four separate provinces of Canada, it was an express stipulation that the Intercolonial Railway should be built by the Dominion Government to give the desired connection between the Maritime Provinces and central Canada.

The work was accordingly at once taken in hand, and the railway was completed and in July, 1876, was opened as a through line up to Rivière du Loup, where it joined the section of the Grand Trunk running between that point and Lévis opposite Quebec; the Government purchased this section in 1879. Meantime, in 1871, British Columbia, and in 1873, Prince Edward Island, had been admitted into the Dominion.

By the completion of the Intercolonial Railway and the connections thereby made with the existing systems, direct communication was obtained between the two Canadian Atlantic ports of Halifax in Nova Scotia and Saint John, New Brunswick, and a number of lake ports at the head of Lake Ontario, the head of Lake Erie and on Lake Huron, making connection with the American lines from the west and south and tapping the traffic of the great lakes at various points.

The 1st of July, 1876, therefore, marks the beginning of a new epoch in the railway history of the country, and the statistics of the fiscal year 1875-1876, which closed on the 30th of June, 1876, are of importance for purposes of comparison.

*Railway statistics for 1875-1876.*

The number of railways in operation at that date was 37, including Government roads (the Intercolonial and the Prince Edward Island Railways) with a total length of 5,157 miles (8,299 kilometres), from which is to be deducted for mileage of the Grand Trunk Railway in the United States, 228 miles (367 kilometres), leaving 4,929 miles (7,932 kilometres) operated in Canada. With the exception of 79 miles (127.8 kilometres) of the Great Western, all were single track lines, 2,373 miles (3,819 kilometres) were laid with steel, 2,758 miles (4,438 kilometres) with iron, and, in the case of one line, 25½ miles (41 kilometres) with wooden rails. The total "paid up capital" of railways in operation and under construction amounted to \$333,886,047 (1,669,430,238 francs), of which there was expended by the Dominion Government \$60,283,026 (301,415,131 francs).

6,331,757 tons (6,433,065 tons met.) of freight and 5,544,814 passengers were carried. The earnings aggregated \$19,358,084 (96,790,420 francs) and the cost of operating \$15,802,721 (79,013,607 francs). There were 1,000 locomotives, 773 passenger cars, and 13,647 box freight and cattle cars. The above figures do not include certain short lines operated by coal companies for shipping purposes, of which there were in Nova Scotia 15, aggregating 111 miles (178.6 kilometres).

Besides the railways in operation there was much work of construction in progress, both by Government and by private companies. Published official returns for the previous year show that on the 30th of June, 1875, there were under construction, but not opened, 2,275 miles (3,661 kilometres) of road. These included work on the railway in contemplation to connect Canada west of the great lakes with the waters of the Pacific, which ultimately took completed form under the name of the Canadian Pacific Railway.

*General position of railway construction in 1876.*

Before considering this great work, and the new epoch which its construction inaugurated, it would be well to note to how limited an extent the interior of the country had so far been touched by railways. A map which accompanied the Departmental Report of 1876, shows, indeed, a through line connecting the principal cities of the Dominion and communicating with American lines to the south and west, but this through line bordered closely on the River Saint Lawrence, and with the exception of a line of the Grand Trunk Railway to Ottawa, about 50 miles (80 kilometres) north on the river, and another about 120 miles (193 kilometres) long, from a point on the main line to the River Ottawa at Pembroke, there was practically nothing to pierce the dense forests with which the interior of the country was covered beyond a few more or less difficult and sometimes impassable roads and paths, and these of but limited extent. Quebec had, it is true, communication by ferry, with the railway across the river, but none to the east, west or north. Montreal had no railway to the north or east, though by means of the Victoria bridge she had ample connection with the south.

This condition of things was, however, being rapidly altered. A line of railway was in course of construction on the north side of the Saint Lawrence between Quebec and Ottawa, and the building of a railway to connect the railway systems of eastern and central Canada with the Pacific (expressly stipulated for as a condition of the entry of British Columbia into confederation) was making progress. Surveys of the whole intermediate country had been simultaneously commenced at either end by parties starting in June and July, 1871.

*Position of communication west of the Great Lakes prior to the building of the Canadian Pacific Railway.*

A brief glance at the position of traffic communication between Canada East and Canada West of Lake Superior prior to the advent of the railway will be of interest.

## Department of Railways and Canals.

Up to the head of Canadian waters on Lake Superior, namely, to Prince Arthur's Landing, Thunder Bay, boats and steamers gave access.

Between Prince Arthur's Landing (now Port Arthur) and the Red River settlement at Fort Garry (afterwards known as Winnipeg), the route followed by the *voyageur*, known "as the old canoe route," constituted the sole means of communication. It utilized the most convenient stretches of water navigation afforded by the rivers and lakes of this region, and over the whole distance of 451 miles (726 kilometres) only eleven short portages, of a total of 8 miles (12.9 kilometres), were rendered necessary. Along this route in 1870, the troops under Colonel, now Lord, Wolseley, were forwarded to suppress a Half-breed and Indian rising in Manitoba. This route, however, proved impracticable for the transportation of emigrants and was abandoned.

### *Surveys for the Canadian Pacific Railway.*

The surveys for the Pacific Railway, commenced in 1871, involved an immense amount of work and extended over several years. The data obtained, however, were of great value, and afforded a mass of information as to the capabilities of the country both in the interior and on the Pacific coast, which has been of much service in its subsequent development. In 1877, the railway was commenced as a public work, but it was soon found advisable that it should be constructed by private enterprise, supplemented by Government aid. It was, accordingly, placed in the hands of a company, the Canadian Pacific Railway Company, in 1881, the contract calling for completion in 1891. In aid of the work, the Dominion gave \$25,000,000 (125,000,000 francs) in money and 25,000,000 acres (10,116,600 hectares) of land, together with about 640 miles (1,030 kilometres) of completed railway which the Government had then under contract, the cost of which, including the surveys, was some \$33,000,000 (165,000,000 francs).

### *Canadian Pacific Railway commenced and completed.*

With this subsidy the company commenced operations, and carried on their works with such energy that the road was built by 1886, five years in advance of the expiry of the time stipulated in the contract, the first through train from Montreal to Vancouver, running in June of that year.

Since that date, the development of railways west of Winnipeg on the part of the company and on the part of other companies, whose enterprises have been rendered possible by the construction of the main line, has been of enormous extent. Far outlying districts in the north and south have been opened up, and the fertile plains of Manitoba and the great North-west, together with the rich valleys and mining districts of British Columbia, have been placed in communication by railway with the Atlantic and Pacific seaboard and with the American railway systems to the south.

Towards this development, and towards the corresponding extension of railway enterprise in the older sections of Canada, the policy of the Dominion, adopted in 1882, of aiding companies by limited grants of money and lands, given under rigid restrictions as to the quality of the work, has largely conduced.

### *Railway statistics for 1885-1886.*

The following general statistics for the year 1885-1886 are full of interest, as marking the position of railway matters in the Dominion at the commencement of the period of through communication from ocean to ocean.

There were 11,523 miles (18,544 kilometres) of track laid, and 10,697 miles (17,215 kilometres) of railway in operation. 10,303 miles (16,581 kilometres) were laid with steel rails. The paid up capital amounted to \$653,376,144 (3,266,880,720 francs), in which is included bonuses given and expenditure

made by the Dominion Government to the amount of \$124,966,467 (624,832,337 francs). The aggregate of earnings was \$33,389,382 (166,946,910 francs), and of working expenses \$24,177,582 (120,887,910 francs). The number of passengers was 9,861,024, and of freight 15,670,460 tons (15,921,187 tons met.) were carried.

There were 1,567 locomotives, 1,305 passenger and 23,645 box freight and cattle cars. The lines owned by coal and iron mining companies are not included in the above. Of these, there were in Nova Scotia 113 miles (182 kilometres) owned by 13 companies.

The Canadian Pacific Railway Company, in the year 1886, owned or controlled 4,533 miles (7,295 kilometres) of railway in Canada, of which there were in operation 3,769 miles (6,065 kilometres). The Grand Trunk Railway owned or controlled 2,598 miles (4,181 kilometres).

*General position of railway progress from 1886 to date.*

During the period between 1886 and the present date, railway construction, with all its attendant developments, has actively proceeded year by year. By a tunnel under the River Saint Clair, completed in 1891, the Grand Trunk Company obtained a new link of direct railway communication with the railway systems of Michigan, and by the close of 1890, the government had completed the extension of the Intercolonial to the eastern harbour of Sydney, Cape Breton, increasing to 1,142 miles (1,838 kilometres) the total mileage of that road. By the end of 1888, a direct line of railway had been constructed, giving a shorter route between Montreal and Saint John, New Brunswick, crossing the state of Maine and communicating with Montreal by a new bridge over the Saint Lawrence. This railway is part of the Canadian Pacific Railway system. North from Quebec 242 miles (389 kilometres) of railway have been built, giving access to the fine agricultural district of the Lake Saint John. Northward from Ottawa, another agricultural district of promise is about to be opened up, 56 miles (90 kilometres) of railway having been constructed: further west, a line, of which 25 miles (40.2 kilometres) are built, is about to pierce the district at the head of the River Ottawa: west of Winnipeg, the country to the northward is being opened up by railways touching the main line of the Canadian Pacific. Already one line extends 250 miles (402 kilometres), another 254 miles (409 kilometres), and a third near the eastern slope of the Rocky Mountains, 191 miles (307 kilometres) long, give access to sections of valuable country, while to the south extensive coal districts are being served by more than one road, and connection is made with American railway systems.

In the older provinces of Ontario and Quebec, the southern portions are covered with a network of lines. At the present date six lines of railway centre at Quebec, seven lines at Montreal, seven at Toronto, six at Ottawa, and nine at Winnipeg.

*Railway Statistics, 1893-94.*

As before observed, the Dominion and Provincial governments and municipalities have largely assisted railway enterprise by grants of money and lands. Up to the end of June, 1894, the Dominion government, apart from the construction of its own roads and aid to the Canadian Pacific, had assisted construction of 71 railways to the extent of over 11½ million dollars (56,250,000 francs) in cash. The various Provincial governments had assisted railway enterprise to the extent of nearly 30 million dollars (150 million francs) and municipalities nearly 16 million dollars (80 million francs).

In the fiscal year ended on the 30th June, 1894, not including private coal and iron mining companies lines, the number of miles of completed railway was 15,768 (25,376 kilometres), of which 15,368 (25,376) were laid with steel rails: the number of miles in operation was 15,627 (25,250 kilometres). The amount of the paid up capital was 887,975,020 dollars (4,439,875,100 francs). The gross earnings amounted

## Department of Railways and Canals

to \$49,552,528 (247,762,640 francs), and the working expenses to \$35,218,433 (176,092,165 francs), leaving the net earnings \$14,334,095 (71,670,475 francs). The number of passengers carried was 14,452,498 and 20,721,116 tons (21,052,654 tons met.) of freight, about one million tons less than in the previous year. The number of miles run by trains was 43,770,029 (70,439,526 trains-kilometres). The number of controlling companies was 72, besides the two lines, the Intercolonial and the Prince Edward Island owned by the government. The Canadian Pacific Railway Company owned or controlled 6,127 miles (9,860 kilometres), and the Grand Trunk Railway 3,158 miles (5,082 kilometres).

Of the total mileage of track laid, the following shows the share each province had in railway enterprise (omitting fractions of a mile); Ontario, 6,267 miles (10,085 kilometres); Quebec, 3,024 (4,866 kilometres); New Brunswick, 1,396 (2,247 kilometres); Nova Scotia, 825 (1,328 kilometres); Prince Edward Island, 210 (338 kilometres); Manitoba, 1,471 (2,367 kilometres); the Territories, 1,772 (2,852 kilometres), and British Columbia, 800 (1,287 kilometres). Of the freight carried, there were 11,169,833 barrels or 1,112,885 tons (11,306,911 tons met.) of flour, and 100,402,828 bushels or 2,567,594 tons (2,608,676 tons met.) of grain, and 3,609,313 tons (3,667,062 tons met.) of lumber: of live stock 4,245,172 were carried, and 2,921,373 tons (2,968,115 tons met.) of manufactured goods.

The rolling stock operating this traffic comprised 2,002 locomotives, 1,861 passenger cars, 636 baggage mail and express cars, 35,852 freight cars (box and cattle) and 19,603 flat and other cars.

### *Results of Railway construction.*

It remains to indicate, so far as may be done, the effect produced upon the country by the construction of railways throughout its various sections; and for this purpose the statistics afforded by the census returns, those of customs, agriculture, and immigration, the statistics of the post office, of banking institutions, of trade and navigation, and municipal assessments are available. Besides these sources of information, the returns made by the railway companies themselves to the government, already quoted, are of special value.

### *Census Statistics of 1861 to 1891.*

First as to the population:

In 1861 the population of Uper Canada (Ontario) was 1,396,091, of Lower Canada (Quebec), 1,111,566, of New Brunswick 252,047, of Nova Scotia 330,857, of Prince Edward Island 80,857. The North-west Territories and British Columbia are not included not being in the Dominion at that date. Manitoba at this time had no separate existence, having been formed out of the North-west Territories in 1870, after their acquisition by the Dominion. Records of population in respect of these three sections of the country are not available but, apart from the Indian tribes, population was practically non-existent.

In 1871 the first census of the Dominion was taken.

The population of the country at that time was 3,689,257. It comprised, British Columbia 36,247 (including 25,661 Indians, Manitoba 25,228, New Brunswick 285,594, Nova Scotia 387,800, Ontario 1,620,851, Prince Edward Island 94,021, Quebec 1,191,516, the Territories (covering four districts west from Manitoba to the Rocky Mountains, and embracing an area of 394,981 square miles (763,971 square kilometres), 18,000, the unorganized territories, which comprised 2,076,500 square miles (5,377,927 square kilometres), 30,000.

In 1871, the percentages of the urban and the rural population were as follows: In Ontario, urban 19.4, rural 80.6; Quebec, urban 19.5, rural 80.5; Nova Scotia, urban 14.0, rural 86.0; New Brunswick, urban 24.3, rural 75.7; Manitoba, urban 1.2, rural 98.8; British Columbia, urban 8.9, rural 91.1; Prince Edward Island, urban, 11.5, rural 88.5, the totals for Canada being, urban, 18.8, rural 81.2 the total urban population being 686,019. Of the urban population, Montreal had 107,-

225, Toronto 56,092, Quebec 59,699, Ottawa 21,543. Winnipeg had only 241 inhabitants, and in British Columbia, Victoria had only 3,270, while Vancouver and New Westminster had no existence.

Passing over the census of 1881, that taken in 1891 shows population as follows:—

Total population of Canada 4,833,239, comprising British Columbia, 98,173; Manitoba, 152,506; New Brunswick, 321,263; Nova Scotia, 450,396; Ontario, 2,114,321; Prince Edward Island, 109,078; Quebec, 1,488,535; the four organized districts of "The Territories," 66,799, and the unorganized territories, 32,168. The population is now estimated at 5,000,000.

The percentages of the urban and rural populations in 1891 were as follows:— Ontario, urban 33·2, rural 66·8; Quebec, urban 29·2, rural 70·8; Nova Scotia, urban 21·2, rural 78·8; New Brunswick, urban 19·4, rural 80·6; Manitoba, urban 22·5, rural 77·5; British Columbia, urban 42·5, rural 57·5; Prince Edward Island, urban 13·0, rural 87·0; the Territories, urban 5·6, rural 94·4. For the whole of Canada, urban 28·7, rural 71·3. The aggregate urban population for the whole of Canada was 1,390,910.

Of cities and towns with a population of 100,000 and upwards there were two, Montreal with 216,650, and Toronto with 181,220.

With 25,000 and less than 70,000, there were 7, including Winnipeg, 25,642, a growth of 221·1 per cent for that city in the decade.

With 10,000 and less than 25,000, there were 11, including Vancouver 13,685 and Victoria, 16,841, 184·2 per cent increase for that city.

With 5,000 and less than 10,000 there were 26, including New Westminster, 6,641, 342·7 per cent increase in the decade. There were 46 towns with populations between 3,000 and 5,000, including Springhill, Nova Scotia, 4,813, an increase of 434·7 per cent. Nanaimo, on Vancouver Island, 4,595, an increase of 179·3 per cent. Calgary, Brandon and Portage la Prairie, towns on the western section of the Canadian Pacific Railway had sprung into existence, and had populations respectively of 3,876, 3,778 and 3,363.

Turning to the occupations of the population, there were 408,738 farmers, or with their sons engaged in agriculture, 649,506. This does not include farm labourers.

Of the last total, British Columbia had 5,874, an increase compared with 1881 of 146·7 per cent; Manitoba had 29,014, an increase of 115 per cent; and the Northwest Territories 10,837 as against 1,011 in 1881, an increase of 971·9 per cent.

In 1891 there were 28,537,242 acres (11,547,994 hectares) of improved land against 21,899,180 acres (8,856,763) in 1881, and 17,335,818 acres (7,015,181 hectares) in 1871.

The growth of the industrial interests of the country may be followed in the subjoined table.

	1871.	1881.	1891.
Number of establishments.....		49,923	75,768
Capital invested.....	\$77,964,020 (389,820,100 fr.)	\$165,302,623 (826,513,115 fr.)	\$353,836,817 (1,769,184,085 fr.)
Number of employees.....	187,942	254,935	367,865
Wages paid.....	\$40,851,019 (204,255,095 fr.)	\$59,429,002 (297,145,010 fr.)	\$99,762,441 (498,812,205 fr.)
Cost of raw material.....	\$124,907,846 (624,539,230 fr.)	\$179,918,593 (899,592,965 fr.)	\$255,983,219 (1,279,916,095 fr.)
Value of products.....	\$221,617,773 (1,108,088,865 fr.)	\$309,676,068 (1,548,380,340 fr.)	\$475,445,705 (2,377,228,525 fr.)

## Department of Railways and Canals.

In 1891 British Columbia had 770 establishments with an output valued at \$11,999,928 (59,999,640 francs); Manitoba 1,031, with an output of \$10,155,182 (50,575,910 francs), and the Territories 375, with an output of \$1,827,310 (9,136,550 francs).

British Columbia had 59 establishments, each producing to the value of \$50,000 (250,000 francs) and over, against 13 establishments in 1881, and 18 producing to the value of \$100,000 (500,000 francs) and over against 4 in 1881.

Manitoba had 39 establishments each producing to the value of \$50,000 (250,000 francs) and over, against 13 in 1881, and 26 establishments whose output was \$100,000 (500,000 francs) and over, against 5 in 1881.

The Territories had 7 establishments each producing to the value of \$50,000 (250,000 francs) and over, there having been none in 1881; of these 3 produced to the value of \$100,000 (500,000 francs) and over.

Of the total number of establishments in Canada, 1,675 had an output of \$50,000 (250,000 francs) and over; 899 of \$50,000 to \$100,000 (250,000 to 500,000 francs); 776 of 100,000 (500,000 francs), and two produced \$1,000,000 (5,000,000 francs) and over.

In 1891 there were 23,552 persons engaged in steam railway employment, of whom 4,204 were locomotive engineers and firemen. There were 13,417 miners, of whom 5,660 were in Nova Scotia, and 4,591 in British Columbia; 12,319 lumbermen and raftsmen, of whom 1,521 were in Nova Scotia, 1,240 in New Brunswick, and 1,119 in British Columbia, and 27,079 fishermen, of whom 14,478 were in Nova Scotia, 2,926 in New Brunswick, and 3,798 in British Columbia.

Statistics of development in other directions can be given for a date considerably more recent than that of the last census, and the following for the year ended on the 30th of June, 1894, will furnish suggestive information almost up to the present date.

### *Trade and commerce statistics, 1894.*

In the year ended on the 30th of June, 1894, the total import and export trade of Canada amounted to <sup>(1)</sup> \$240,999,889 (1,204,999,445 francs), against a total in 1868 of \$131,027,532 (655,137,660 francs). Of this the following centres of railway communication had share, in round figures, Halifax, \$13,500,000 (67,500,000 francs); St. John, \$7,000,000 (35,000,000 francs); Quebec, \$8,700,000 (43,500,000 francs); Montreal, \$96,400,000 (482,000,000 francs); Toronto, \$22,000,000 (110,000,000 francs); Winnipeg (the only entry port of Manitoba) \$4,200,000 (21,000,000 francs); Vancouver, \$2,100,000 (10,500,000 francs); Victoria, \$5,900,000 (29,500,000 francs). The total for the whole of British Columbia in 1894 was \$13,412,181 (67,060,905 francs), against a total in 1872 of \$3,652,459 (18,262,295 francs) and a total in 1868 of \$6,906,915 (34,534,575 francs). In 1872 the total for Winnipeg was only \$1,027,788 (5,138,940 francs).

The value of the *interprovincial* trade of the Dominion, that is the products of one province required by another, is now estimated at \$100,000,000 (500,000,000 francs). It was only \$4,000,000 (20,000,000 francs) in 1868. This development is entirely owing to the railway progress.

In 1893-1894, Canada exported of her coal produce 996,000 tons (1,011,936 tons met.), Nova Scotia sending away 241,000 tons (244,586 tons met.), and British Columbia 716,000 (727,456 tons met.) while the inland coal of the Territories was exported to the extent of 34,000 tons (34,554 tons met.). No great quantity of either iron or copper ore is sent out of the country, but at the newly developed nickel

(1) Values alone do not give the true measure of this increase. Prices have fallen since 1868 fully 33½ per cent. On the basis of 1868 the trade returns for 1894 should stand at \$305,000,000 (1,525) million francs. The increased *volume* of trade may be inferred from this statement.

mines at Sudbury, on the line of the Canadian Pacific Railway, the ore having been discovered in making a cutting for that railway line, there was produced for export, in 1893-1894, 4,205 tons (4,205 tons met.), the value being \$808,799 (3,043,995 francs).

*Statistics of urban population and advance in the West.*

At the present date, 1895, the following is the estimated population of the principal cities, towns and villages along the line of the Canadian Pacific Railway and its connections, in Manitoba, the Territories, and British Columbia. With populations of from 300 to 1,000 there are 9; from 2,000 to 5,000, 15; while the present estimate of Winnipeg is 30,000, of New Westminster 9,000, and of Vancouver 20,000.

The assessments of certain of these cities for 1893 are as follows:—

Calgary, \$1,400,000 (7,000,000 francs); Vancouver, \$18,655,000 (93,275,000 francs); New Westminster, \$7,504,132 (37,520,660 francs); Winnipeg, \$21,692,700 (108,463,500 francs) (in 1882 it was \$8,000,000—40,000,000 francs); Brandon, \$5,218,838 (15,594,190 francs).

North Bay, Sudbury, Fort William, Rat Portage, Koewatin, Deloraine, Medicine Hat, Regina, Dunmore, Moose Jaw, Edmonton, Prince Albert and a long list of other towns show valuations ranging from \$125,000 to \$500,000 (625,000 to 2,500,000 francs). While Kamloops, Yale, Port Moody, Nelson, and a dozen other towns in British Columbia swell the figures by millions.

Of the 38 chartered banks of Canada (making, with their several branches, 516 institutions) no less than 10 had branches in Winnipeg, 3 in Brandon, Calgary, Edmonton, Vancouver, New Westminster, and 2 in some 15 to 20 other points, apart from private banks. In Winnipeg it was found necessary in 1893 to establish a clearing house, making the fifth in Canada, its recorded transactions for the first half year amounted to \$4,974,267 (24,871,135 francs). It may be noted here that the transactions of the five clearing houses, Montreal, Toronto, Halifax, Hamilton and Winnipeg, amounted for the year 1895 to \$981,137,563 (4,905,687,815 francs).

The total area surveyed by the Dominion Government for settlement in Manitoba, the Territories and British Columbia up to June, 1894, aggregated 77,839,695 acres (31,498,922 hectares), which divided into farms of 160 acres (64,746 hectares) each would give an available total of 496,494 farms. Accommodation therefore for a vast additional population is amply provided for.

Along the main line of the Canadian Pacific from Ottawa to Vancouver, there are 206 stations, the centres of population they serve being, with but very few exceptions, due absolutely to the construction of the railway, and all, without exception owing their development to its presence. At various points along the immense distance traversed, these have become the nuclei of various important mining, lumbering, manufacturing and agricultural industries.

It must not of course be imagined, that any large proportion of these stations on the line are in themselves more than merely stopping places, accommodating out-lying farm or mining settlements, but at the same time in all the towns of larger extent, a high degree of modern comfort and convenience is attained. Electrical lighting and transport, good streets, large public buildings, water works, fine hotels, handsome well filled stores, and commodious private residences, churches, schools, and theatres, place these prairie and coast towns in a position of advancement undreamt of in cities of the older world with many times their population.

From several hundred returns procured from points west of Ottawa it is possible to state that leaving aside the towns existing before the advent of the Canadian Pacific Railway, and without including the value of the farming lands, the value of the property of the new towns along the line aggregates over one hundred million dollars (500 million francs.) The value for purposes of taxation of



## Department of Railways and Canals.

property, which was unavailable and useless in 1880, and which has been made of value by the construction of the Canadian Pacific Railway is four times the amount of the expenditure by the country on account of that work.

Perhaps no more suggestive and conclusive statement can be put forward in evidence of the beneficial results of the railway policy of this country than the simple fact that to-day it is possible for any one to travel by rail the whole distance, 3,661 miles (5,892 kilometers), between Halifax, on the Atlantic, and Vancouver, on the Pacific coast, in  $5\frac{1}{2}$  days, at a cost, for fare, of \$53.50 (267.50 francs); while from Montreal, at the head of summer navigation, to Vancouver, the time occupied would be a little over four days, and the fare \$42 (210 francs). The time is the normal time taken, and implies a vast number of stoppages. It could of course, be greatly reduced on an emergency. Contrast this with the time taken, as above stated, by the first expedition of the troops under Sir Garnet Wolseley in 1870, when two months were required, even in circumstances needing all possible haste, for traversing the 452 miles (727 kilometers) between the head of Lake Superior and the present site of Winnipeg.

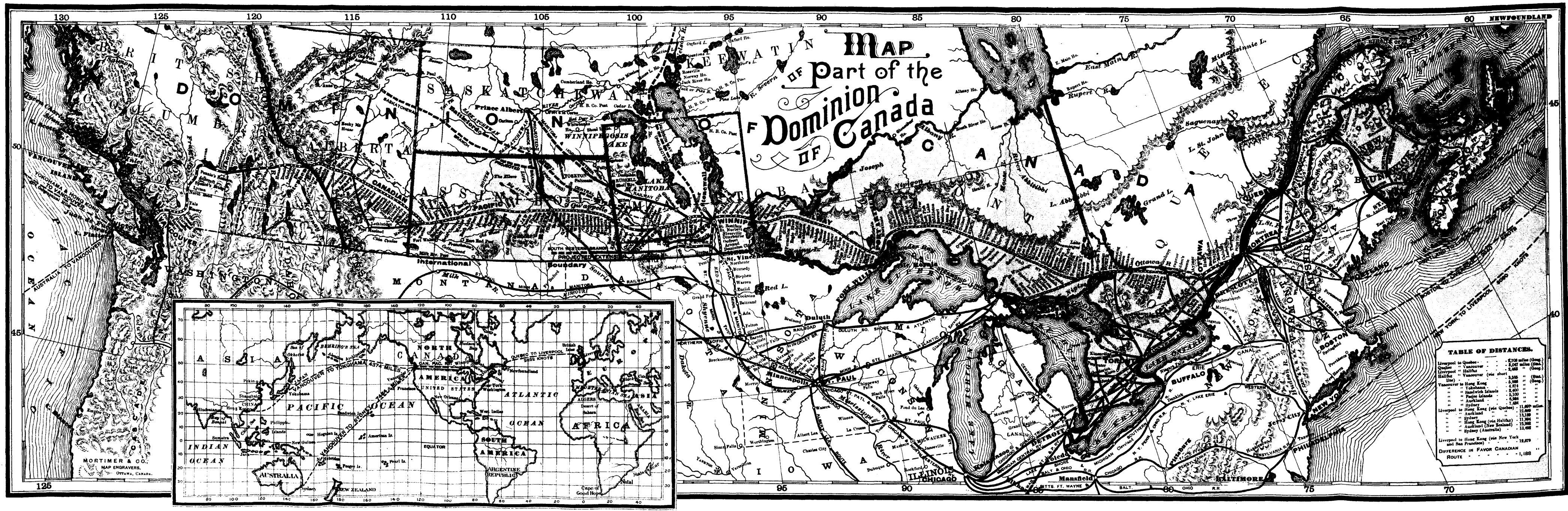
In these days, when, apart from personal travel, so much of the world's business is transacted by postal communication, it will be seen how enormously the railway by its rapid transport has benefited the country at large, while it must also be borne in mind that by the telegraph, the natural and necessary adjunct of the railway, communication between the two oceans is practically instantaneous.

The following facts in relation to the postal development speaks volumes: Taking the year 1868, the year after confederation, there were 3,638 offices, and the number of letters was 18,100,000. In 1872, there were in Canada 4,135 offices and 30,600,000 letters and cards and 24,400,000 newspapers were posted. At that date Manitoba and the Territories had 27 offices, with 80,000 letters and cards, and British Columbia 38 offices and 160,000 letters and cards, 150,000 newspapers together. In 1894, there were in Canada 8,664 offices, dealing with 130,840,000 letters, cards and newspapers. Manitoba and the Territories had 692 offices with 8,845,000 letters and cards, and 1,300,000 newspapers, while British Columbia had 229 offices, the number of letters and cards being 3,880,000 and over 500,000 newspapers.

A further point has to be borne in mind in considering the construction of this great railway as an initial step from which developments may be obtained. It is solely due to the construction of this road that it has been possible to place on the Pacific Ocean, and from a terminus on British territory, a line of steamers belonging to the company communicating with Japan, China, and Australia by a route shorter than any previously existing. From Vancouver to Yokohama  $11\frac{1}{2}$  days only are required; to Hong-Kong 19 days, and to Sydney 23 days, and these schedule times are capable of considerable modification on emergency.

In view of the position as shown by the present memorandum it only remains to add that the Dominion Government alone, since confederation in 1867, has expended on the construction of its own roads and the subsidizing of private railway enterprise a total of \$124,614,140 (623,070,700 francs), and to draw the conclusion that this investment of public moneys has proved to be judicious and successful. In Canada, as in other parts of the world, notably in the United States, the policy of inducing settlement and creating trade and commerce by first affording the facilities for communication, is beyond question, the true policy in the interests of the country at large.

CONGRÈS INTERNATIONAL DES CHEMINS DE FER.  
CINQUIÈME SESSION, LONDRES, 1895.



CARTE DES CHEMINS DE FER DU CANADA, POUR SERVIR D'ECLAIRCISSEMENT A LA NOTE DE L'HON. SIR CHARLES TUPPER.  
MAP OF THE RAILWAY SYSTEM OF CANADA TO ACCOMPANY PAPER BY SIR CHARLES TUPPER.