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Additional comments /
Commentaires supplémentaires:

In Sessional paper No. 11*, Twenty-sixth annual report of the Department of Marine ... 1893, pages ixa-ixg are inserted between pages viii-ix.

In Sessional paper No. 11*, Twenty-sixth annual report of the Department of Marine ... 1893, page xxxvii is incorrectly numbered page xv xvii.

In Sessional paper No. 11*, Appendices, pages 269 & 283 are incorrectly numbered pages 299 & 383.

SESSIONAL PAPERS

VOLUME 9

FOURTH SESSION OF THE SEVENTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1894



See also Numerical List, page 4.

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OF THE
PARLIAMENT OF CANADA

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Census of Canada, 1890-91. Second Volume..... *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME C.

Census of Canada, 1890-91. Third Volume..... *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 1.

1. Report of the Auditor General on Appropriation Accounts, for the year ended 30th June, 1893. Presented 20th March, 1894, 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, 1893. Presented 20th March, 1894, by Hon. G. E. Foster. 2a. Estimates for the fiscal year ending 30th June, 1895; presented 20th March, 1894. 2b. Supplementary estimates for the financial year ending 30th June, 1894; presented 20th June, 1894. 2c. Supplementary Estimates for the year ending 30th June, 1895; presented 12th July, 1895..... *Printed for both distribution and sessional papers.*
3. Lists of Shareholders in the Chartered Banks of Canada, as on 31st December, 1893. Presented 20th April, 1894, 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, 1893. Presented 11th June, 1894, by Hon. G. E. Foster..... *Printed for both distribution and sessional papers.*

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4. Report of the Superintendent of Insurance for the year ending 31st December, 1893. *Printed for both distribution and sessional papers.*
- 4a. Preliminary abstract of the business of Canadian life insurance companies for the year ending 31st December, 1893. Presented 20th March, 1894, by Hon. G. E. Foster. *Printed for both distribution and sessional papers.*
- 4b. Abstract of statements of Insurance Companies in Canada for the year ending 31st December, 1893. Presented 7th May, 1894, by Sir John Thompson *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, 1893. Presented 17th May, 1894, by Sir John Thompson. *Printed for both distribution and sessional papers.*
- 5a. Report of the Mission to Australia, by the Minister of Trade and Commerce. Presented 4th July, 1894, by Sir John Thompson. *Printed for both distribution and sessional papers.*
- 5b. The Colonial Conference, held at Ottawa, 1894. *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 5.

6. Tables of the Trade and Navigation of Canada for the fiscal year ended 30th June, 1893. Presented 27th March, 1894, by Hon. N. C. Wallace *Printed for both distribution and sessional papers.*
7. Inland Revenues of Canada. Part I., Excise, etc., for the fiscal year ended 30th June, 1893. Presented 20th March, 1894, by Hon. J. F. Wood. *Printed for both distribution and sessional papers.*
- 7a. Inland Revenues of Canada. Part II., Adulteration of Food, 1893. Presented 14th June, 1894, by Hon. J. F. Wood. *Printed for both distribution and sessional papers.*
- 7b. Inland Revenues of Canada. Part III., Inspection of Weights and Measures and Gas. Presented 6th July, 1894, by Hon. J. F. Wood. *Printed for both distribution and sessional papers.*

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8. Report of the Minister of Agriculture for Canada for the calendar year 1893. Presented 12th June, 1894, by Sir John Thompson. *Printed for both distribution and sessional papers.*
- 8a. Report on Canadian Archives, 1893. Presented 12th June, 1894, by Sir John Thompson. *Printed for both distribution and sessional papers.*
- 8b. Third Annual Report of the Dairy Commissioner of Canada for 1892-93. Presented 18th May, 1894, by Hon. T. M. Daly. *Printed for both distribution and sessional papers.*
- 8c. Report of the Director and Officers of the Experimental Farms for the year 1893. Presented 20th April, 1894, by Hon. G. E. Foster. *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 7.

- 8d. The Scheduling of Cattle in England—the Canadian Case. Presented 4th May, 1894, by Hon. T. M. Daly. *Printed for both distribution and sessional papers.*
- 8e. Special Report of the Executive Commissioner on Awards on Agricultural Implements at Chicago, 1893. Presented 7th May, 1894, by Hon. T. M. Daly. *Printed for both distribution and sessional papers.*
- 8f. Criminal Statistics for the year 1893. *Printed for both distribution and sessional papers.*
- 8g. Report of the Executive Commissioner on the World's Columbian Exposition. *Printed for both distribution and sessional papers.*
- 8h. Special Report on the production of and markets for Butter and Cheese. *Printed for both distribution and sessional papers.*

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9. Annual Report of the Minister of Public Works, for the fiscal year ended 30th June, 1893. Presented 16th April, 1894, by Hon. J. A. Ouimet. *Printed for both distribution and sessional papers.*
10. Annual Report of the Minister of Railways and Canals, for the past fiscal year, from the 1st July, 1892, to the 30th June, 1893. Presented 27th March, 1894, by Hon. J. Haggart. *Printed for both distribution and sessional papers.*

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- 11.** Annual Report of the Department of Marine and Fisheries, 1893—Marine. Presented 1st May, 1894, by Sir Charles Hibbert Tupper. *Printed for both distribution and sessional papers.*
- 11*.** Annual Report of the Department of Marine and Fisheries, for the fiscal year ended 30th June, 1893—Fisheries. Presented 11th April, 1894, by Sir Charles Hibbert Tupper.
Printed for both distribution and sessional papers.
- 11a.** Report of the Chairman of the Board of Steamboat Inspection, etc., for calendar year ended 31st December, 1893. *Printed for both distribution and sessional papers.*

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- 12.** Report of the Postmaster General, for the year ended 30th June, 1893. Presented 9th April, 1894, by Sir Adolphe Caron. *Printed for both distribution and sessional papers.*
- 13.** Annual Report of the Department of the Interior, for the year 1893. Presented 21st March, 1894, by Hon. T. M. Daly *Printed for both distribution and sessional papers.*
- 13a.** Summary Report of the Geological Survey Department, for the year 1893. Presented 20th March, 1894, 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 31st December, 1893. Presented 20th March, 1894, by Hon. T. M. Daly *Printed for both distribution and sessional papers.*

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- 15.** Report of the Commissioner of the North-west Mounted Police Force, 1893. Presented 13th April, 1894, by Hon. W. B. Ives. *Printed for both distribution and sessional papers.*
- 16.** Report of the Secretary of State of Canada, for the year ended 31st December, 1893. Presented 20th March, 1894, by Hon. J. Costigan. *Printed for both distribution and sessional papers.*
- 16a.** Civil Service List of Canada, 1893. Presented 20th March, 1894, by Hon. J. Costigan.
Printed for both distribution and sessional papers.
- 16b.** Report of the Board of Civil Service Examiners, for the year ended 31st December, 1893. Presented 30th March, 1894, by Hon. J. Costigan. *Printed for both distribution and sessional papers.*
- 16c.** Annual Report of the Department of Public Printing and Stationery of Canada, for the year ending 30th June, 1893, with a partial report for services during six months ending 31st December, 1893. Presented 23rd May, 1894, by Hon. J. Costigan.
Printed for both distribution and sessional papers.
- 17.** Report of the Joint Librarians of Parliament for the year 1893. Presented 15th March, 1894, by Hon. Mr. Speaker *Printed for sessional papers only.*
- 18.** Report of the Minister of Justice as to Penitentiaries in Canada, for the year ended 30th June, 1893. Presented 20th March, 1894, by Sir John Thompson.
Printed for both distribution and sessional papers.
- 19.** Report of the Department of Militia and Defence of Canada, for the year ended 30th June, 1893. Presented 19th April, 1894, by Hon. J. C. Patterson.
Printed for both distribution and sessional papers.
- 19a.** Establishment Lists of the Active Militia for the financial year, 1894-95. Presented 20th July, 1894, by Hon. J. C. Patterson *Printed for both distribution and sessional papers.*
- 20.** Statement of the affairs of the Canadian Loan and Investment Company, on the 31st December, 1893. Presented 20th July, 1894, by Hon. Mr. Speaker *Not printed.*

CONTENTS OF VOLUME 12.

- 21.** Royal Commission on the Liquor Traffic. Minutes of evidence taken in the provinces of Nova Scotia, New Brunswick and Prince Edward Island.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 13.

21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the province of Quebec.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 14.

21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the provinces of Manitoba, North-west Territories and British Columbia....*Printed for both distribution and sessional papers.*

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21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the province of Ontario.
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CONTENTS OF VOLUME 16.

21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the United States.
Printed for both distribution and sessional papers.

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22. Report of the Commissioner, Dominion Police, for the year 1893, under Revised Statutes of Canada, chapter 184, section 5. Presented 20th March, 1894, by Sir John Thompson..... *Not printed.*
23. Return to an order of the House of Commons, dated 15th March, 1893, for a return showing the number of employees dismissed from the Prince Edward Island Railway since the 1st day of March, 1892, the name of each employee dismissed, the date of each dismissal, the reasons for such dismissals; also the names of employees reinstated, if any. Presented 20th March, 1894.—*Mr. Perry*..... *Not printed.*
24. Return to an order of the House of Commons, dated 20th March, 1893, for copies of all documents, claims, petitions, correspondence, reports of the superintendent of the Chambly canal, reports of experts and others, plans, agreements, proposals and decisions of the government in relation to the claim of Joseph Lacouture, of the parish of St. Luc, for damages caused to his property by the waters of the Chambly canal. Presented 20th March, 1894.—*Mr. Lavergne*... *Not printed.*
25. Statement of all superannuations and retiring allowances in the civil service, giving the name and rank of each person superannuated or retired, his salary, age and length of service; his allowance and cause of retirement, whether vacancy has been filled by promotion or new appointment, &c., for the year ended 31st December, 1893. Presented 20th March, 1894, by Hon. G. E. Foster.
Not printed.
- 25a. Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the number of permanent civil servants in each department, inside and outside service, who contribute to the superannuation fund, and the gross amount of wages paid. Presented 25th April, 1894.—*Mr. McMullen*..... *Not printed.*
26. Statement of expenditure on account of miscellaneous unforeseen expenses, from 1st July, 1893, to date. Presented 20th March, 1894, by Hon. G. E. Foster..... *Not printed.*
27. Statement of Governor General's Warrants issued since last session of parliament, on account of the fiscal years 1892-93 and 1893-94, in accordance with the Consolidated Revenue and Audit Act, section 32, subsection b. Presented 20th March, 1894, by Hon. G. E. Foster..... *Not printed.*
28. Papers and correspondence relative to the payment to the Canadian Pacific Railway Company of amounts deducted from their subsidy in the year 1883. Presented 20th March, 1894, by Hon. G. E. Foster..... *Not printed.*
29. Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1894, for copies of papers and correspondence relating to charges made against Mr. Justice Palmer, or to his resignation and acceptance thereof. Presented 20th March, 1894.—*Mr. Davies*.
Not printed.

VOLUME 17—*Continued.*

- 30.** Return of applications for registration under the provisions of chapter 131, Revised Statutes of Canada, "An Act respecting Trade Unions." Presented 20th March, 1894, by Hon. J. Costigan. *Not printed.*
- 31.** List of public officers to whom commissions have issued under chapter 19 of the Revised Statutes of Canada, during the year 1893. Presented 20th March, 1894, by Hon. J. Costigan. *Printed in No. 16.*
- 32.** Order establishing certain rules in respect of matters therein mentioned, in the Exchequer Court of Canada. Presented 20th March, 1894, by Hon. J. Costigan. *Not printed.*
- 33.** Copy of an order in council of the 17th January, 1894, 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 21st March, 1894, by Sir Charles Hibbert Tupper. *Not printed.*
- 33a.** Return to an address of the House of Commons to his excellency the Governor General, dated 16th April, 1894, for: 1. Copy of order in council appointing Théophile Sabourin fishery overseer for the division of the Lake of Two Mountains and Isle Perrot. 2. Of the order in council appointing Julien Montpetit fishery overseer for the same division. 3. Of all instructions and orders issued by the fisheries department to the said overseers. 4. Of the reports of the two said overseers for the years 1891, 1892. Presented 5th June, 1894.—*Mr. Harwood*. *Not printed.*
- 33b.** Return to an address of the House of Commons to his excellency the Governor General, dated 26th April, 1894, for copies of all telegrams, letters, petitions, orders in council, and all correspondence relating to the dismissal of Timothy McQueen as fishery overseer in the county of Kent, Ontario. Presented 8th May, 1894.—*Mr. Campbell*. *Not printed.*
- 33c.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for copies of all papers, letters, petitions and reports sent to the minister of marine and fisheries, from 1st October, 1893, to this date, respecting the dismissal of I. B. Chevalier, of Iberville, from the post of fishery overseer; and of any communication sent from the government to the said I. B. Chevalier. Presented 11th May, 1894.—*Mr. Béchard*. *Not printed.*
- 33d.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for a return of all papers, correspondence, telegrams, reports to and orders in council, together with all departmental orders relating to the discharge from office as superintendent of St. Paul's island and keeper of Ingonish island, of Mr. Samuel Campbell, or relating to his superannuation allowance. Presented 23rd May, 1894.—*Mr. Davies*. *Not printed.*
- 33e.** Return to an order of the House of Commons, dated 14th May, 1894, for copies of all correspondence since 1st January, 1892, to the present time, from fishery officers and others from the western counties of Nova Scotia and the county of Charlotte in New Brunswick, as regards the taking of lobsters and of the limitation of size, and of all recommendations in regard to the same. Also a copy of all correspondence between the minister of marine and fisheries and his officials and all other persons as regards the close season for the herring fishing at Two Island harbour, Grand Manan, and of the weirs at that place. Presented 11th June, 1894.—*Mr. Bowers*. *Not printed.*
- 33f.** Return to an address of the House of Commons to his excellency the Governor General, dated 26th April, 1894, for copies of all orders in council and departmental orders now in force in the province of Ontario, concerning fisheries therein, and of all petitions received by the department with regard to the same. Presented 21st June, 1894.—*Mr. McGregor*. *Not printed.*
- 34.** List of all lands sold by the Canadian Pacific Railway Company from the 1st October, 1892, to the 1st October, 1893. Presented 21st March, 1894, by Hon. T. M. Daly. *Not printed.*
- 34a.** 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 28th March, 1894, by Hon. T. M. Daly. *Not printed.*
- 34b.** Return to an order of the House of Commons, dated 15th March, 1893, for copies of all documents, memorials and correspondence between the government and the Sorel board of trade and others, in relation to the granting of a subsidy to the Canadian Pacific Railway Company, for the rebuilding of a bridge at St. Michel d'Yamaska. Presented 10th April, 1894.—*Mr. Bruneau*. *Not printed.*

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- 34c.** Return to an address of the Senate to his excellency the Governor General, dated 5th April, 1894, for a schedule of the passenger and freight rates of the Canadian Pacific Railway Company, including the rates from St. Paul and Minneapolis to the seaboard, now in force. Presented 30th April, 1894.—*Hon. Mr. Boulton* *Not printed.*
- 34d.** Return to an address of the Senate to his excellency the Governor General, dated 17th May, 1894, for a schedule of the passenger and freight rates of the Intercolonial Railway; and the revenue derived by the Canadian Pacific Railway Company on its western division, between Port Arthur and Calgary, for the financial years ending 1892 and 1893. Presented 6th June, 1894.—*Hon. Mr. Boulton.*
Not printed.
- 35.** Return of orders in council, in accordance with subsection (*d.*) 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 27th March, 1894, by Hon. T. M. Daly.
Not printed.
- 35a.** Return of orders in council of 1893 relating to the department of the interior, in accordance with clause 91 of the Dominion Lands Act, chapter 54, Revised Statutes of Canada. Presented 27th March, 1894, by Hon. T. M. Daly *Not printed.*
- 35b.** Statement in reference to fishing bounty payments for 1892-93, required by chapter 96 of the Revised Statutes of Canada. Presented 28th March, 1894, by Sir Charles Hibbert Tupper.... *Not printed.*
- 36.** Return to an order of the House of Commons, dated 1st March, 1893, for copies of all reports, documents, maps, manuscripts and correspondence in relation to exploring expeditions heretofore made to James Bay and Hudson Bay. Presented 27th March, 1894.—*Mr. Joncas* .. *Not printed.*
- 37.** Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1894, for a return showing copies of all petitions or communications to the government or to any member thereof, or to his excellency, asking for any interference with the sentence passed by his lordship the Hon. Mr. Justice Rose on Messrs. McGreevy and Connolly, of all replies thereto and all correspondence between any member of the government and any other person on the subject of commutation of such sentence; of all medical reports made in regard to either said McGreevy or Connolly, whilst undergoing such sentence; of all reports or recommendations on the said subject, by any member of the government to his excellency, and of all replies thereto and of all orders in council in anywise bearing upon the subject of the commutation of said sentences. Presented 29th March, 1894.—*Mr. Mulock*..... *Not printed.*
- 38.** Detailed statement of all bonds and securities registered in the department of the secretary of state of Canada, since last return, 1893, submitted to the parliament of Canada under section 23, chapter 19, of the Revised Statutes of Canada. Presented 29th March, 1894, by Hon. J. Costigan.
Not printed.
- 39.** Return to an order of the House of Commons, dated 20th March, 1894, for a return showing the dates in each year since May 5th, 1887, when the Public Accounts, the Appropriation Accounts, and the Trade and Navigation Returns of Canada, for the next preceding fiscal year, have been published and ready for distribution; and when the said accounts and returns have been issued to the senators and members of the House of Commons of Canada in each of the years aforesaid. Presented 30th March, 1894.—*Mr. Charlton*..... *Not printed.*
- 40.** Return to an order of the House of Commons, dated 13th March, 1893, for a return showing the number of school teachers engaged in teaching in the North-west Territories, and the length of time each was engaged during the past year, with the salary received; also the number of pupils attending each school, and all sources of revenue for the maintenance of schools. Presented 2nd April, 1894.—*Mr. Semple*..... *Not printed.*
- 40a.** Supplementary return to an address of the Senate to his excellency the Governor General, dated 3rd February, 1893, for: 1. A copy of the deliberations, resolutions and ordinances of the former council of Assiniboia, relating to educational matters within its jurisdiction as it existed on the banks of the Red river before the creation of the province of Manitoba. 2. A statement of the amounts paid by the said council of Assiniboia for the maintenance of schools, showing the person^s to whom such payments were made, the schools for which such amounts were paid, and the religious denomination to which such schools belonged. 3. A statement of the amounts paid by

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- the Hudson Bay Company, or by its agents, to the schools then existing in the territories forming to-day the province of Manitoba. 4. A copy of all memoranda and instructions serving as basis for the negotiations as a result of which Manitoba became one of the provinces of the confederation; together with a copy of the minutes of the deliberation of the persons charged on both parts to settle the conditions of the creation of the province of Manitoba and of its entrance into the confederation; and also a copy of all memoranda, returns and orders in council, establishing such conditions of entrance, or serving as a basis for the preparation of "The Manitoba Act."
5. A copy of the despatches and instructions from the imperial government to the government of Canada on the subject of the entrance of the province of Manitoba into the confederation, comprising therein the recommendations of the imperial government concerning the rights and privileges of the population of the Territories, and the guarantees of protection to be accorded to the acquired rights, to the property, to the customs and to the institutions of that population by the government of Canada, in the settlement of the difficulties which marked that period of the history of the Canadian West. 6. A copy of the acts passed by the legislature of Manitoba relating to education in that province and especially of the first act passed on this subject after the entrance of the said province of Manitoba into the confederation, and of the laws existing upon the same subject in the said province immediately before the passing of the acts of 1890, relating to the public schools and relating to the department of education. 7. A copy of all regulations with respect to schools passed by the government of Manitoba or by the advisory board, in virtue of the laws passed in 1890 by the legislature of Manitoba relating to public schools and the department of education. 8. A copy of all correspondence, petitions, memoranda, resolutions, briefs, factums, judgments (as well of first instance as in all stages of appeal), relating to the school laws of the said province of Manitoba, since the 1st June, 1890, or to the claims of catholics on this subject; and also a copy of all reports to the privy council and of all orders in council relating to the same subject since the same date. Presented 21st March, 1894.—*Hon. Mr. Bernier*. *Printed for both distribution and sessional papers.*
- 40b.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all papers, petitions, letters, reports, minutes and orders in council respecting the school law of Prince Edward Island, intitled "The Public Schools Act, 1877." Presented 23rd April, 1894.—*Mr. Leclair*. *Printed for both distribution and sessional papers.*
- 40c.** Return to an address of the Senate to his excellency the Governor General, dated 9th April, 1894, for copies of all school ordinances, school regulations and amendments thereto, adopted by the legislative assembly, the executive, and any board or council of education, in reference to the establishment, maintenance and administration of schools in the North-west Territories since 1885. Also for copies of all petitions, memorials and correspondence in reference thereto. Also for copies of all orders in council, reports to the governor general in council, and all communications and representations to the authorities in the North-west Territories. Presented 30th April, 1894.—*Hon. Mr. Bernier*. *Printed for both distribution and sessional papers.*
- 40d.** Return to an address of the House of Commons to his excellency the Governor General, dated 21st March, 1894, for copies of all petitions, memorials and correspondence, in reference to the appeal made in the name of the Roman catholic minority of the province of Manitoba, in reference to the school laws of that province; also copies of reports to and orders in council in reference to the same; also copies of the case submitted to the supreme court of Canada respecting aforesaid appeal, and including factums and all materials in connection therewith, and copies of all judgments rendered and answers given by said court on or to the questions referred to them. Presented 27th June, 1894.—*Mr. LaRivière*. *Printed for sessional papers only.*
- 41.** Return to an address of the Senate to his excellency the Governor General, dated 20th March, 1893, for a copy of all documents in relation to the demand of Michel Gosselin, Half-breed, living at Roseberry, Manitoba, and claiming indemnity for losses sustained during the troubles in the North-west in 1869 and 1870. Also a copy of all correspondence exchanged between the Dominion government and the said Michel Gosselin in relation to the said claim. Presented 21st March, 1894.—*Hon. Mr. Bellerose*. *Not printed.*
- 42.** Return to an address of the Senate to his excellency the Governor General, dated 21st February, 1893, for a copy of all the changes that have been made in the tariff since the national policy became law in 1879, giving the name of each article, showing the original duty imposed thereon, the amount of increase or reduction subsequently made, or placed upon the free list, together with the date of all such alterations in the tariff. Presented 2nd April, 1894.—*Hon. Mr. McMillan*. *Not printed.*

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- 43.** Return to an order of the House of Commons, dated 30th March, 1894, for a complete list of the revising officers under the Franchise Act, giving their names, their electoral divisions, and when appointed. Presented 5th April, 1894.—*Sir Hector Langevin*. *Not printed.*
- 44.** Return to an order of the House of Commons, dated 20th March, 1894, for return of all rates, general or special, charged on the Intercolonial Railway on through freight from Lévis to Halifax; with the dates when such existing general or special rates came into force, and in cases where such rates have been altered, specifying the alteration. Presented 6th April, 1894.—*Mr. Davies*.
Not printed.
- 44a.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for all papers, correspondence, telegrams, reports to, or orders in council, or departmental orders not already brought down to parliament, relative to the purchase of the Harris property in St. John for the Intercolonial Railway, or the payment of the purchase moneys therefor or relative to the uses or purposes to which that property has since been applied. Also for a list of all the claimants to the title of said property or any interest therein, together with the amounts paid to them respectively, and a summary or abstract of all deeds or agreements taken from the claimants respectively. Also for a statement of all moneys since laid out upon such property, and its total cost up to date. Presented 19th June, 1894.—*Mr. Davies*. *Not printed.*
- 45.** Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1893, for copies of all correspondence between the government of British Columbia and the minister of the interior, relating to the boundary of the railway belt in the province of British Columbia. Presented 9th April, 1894.—*Mr. Mara*. *Not printed.*
- 46.** Return to an order of the House of Commons, dated 30th March, 1894, for a statement showing the various amounts paid by way of bounty on pig iron produced in Canada, the quantities produced, and the parties to whom the bounty was paid, and the province in which their works are situated, since the date of the last return. Presented 10th April, 1894.—*Mr. Edgar*.
Printed for sessional papers only.
- 47.** Return to an order of the House of Commons, dated 30th March, 1894, for a return showing (by provinces) the value of mining machinery admitted free of duty since the year 1890. Presented 10th April, 1894.—*Mr. Mara*. *Not printed.*
- 48.** Return to an order of the House of Commons, dated 29th March, 1894, for a return of: 1. The number of students who have graduated from the royal military college since its establishment. 2. Number of these graduates who are now in the public service of Canada and number in the service of the imperial government. 3. Amount expended on capital account and on income since the college was established. 4. Number of students graduated in 1893. 5. Number of students now in attendance. 6. Total amount of salaries paid each year, to the different persons employed in connection with the college. 7. Name of the commandant of the college: his salary, perquisites, if any, in the way of free residence, maintenance thereof, supplies, servants, &c. 8. The cost of the residence for use of commandant, if purchased, and the amount expended thereon by the government since the purchase. Presented 12th April, 1894.—*Mr. Mulock*.
Printed for sessional papers only.
- 48a.** Supplementary return to no. 48. Presented 11th May, 1894.—*Mr. Mulock*.
Printed for sessional papers only.
- 49.** Return to an order of the House of Commons, dated 30th March, 1894, for a return of the sentence imposed by the supreme court of the province of New Brunswick upon John V. Ellis, editor of the *St. John Globe*, in the past year, for an alleged contempt of court; together with the names of the judges composing the court at the time the sentence was imposed. Presented 12th April, 1894.—*Mr. Davies*. *Not printed.*
- 50.** Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1894, for the production of all correspondence and other papers relating to the copyright question which have not already been brought down. Presented 13th April, 1894.—*Mr. Edgar*.
Printed for sessional papers only.

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- 51.** Return to an order of the House of Commons, dated 30th March, 1894, for a statement showing the working of the civil service insurance, how many civil servants have insured their lives in such insurance, and for what amounts respectively, without giving their names. Presented 13th April, 1894.—*Sir Hector Langevin*. *Not printed.*
- 52.** Return to an order of the House of Commons, dated 16th April, 1894, for a return of the receipts and expenditures to dates of 10th April, 1894, and 10th April, 1893. Presented 16th April, 1894. *Sir Richard Cartwright*. *Not printed.*
- 52a.** Return to an order of the House of Commons, dated 7th May, 1894, for a return showing the total amount of receipts and expenditures chargeable to consolidated fund from 1st July, 1893, to 1st May, 1894, and also for same period from 1st July, 1892, to 1st May, 1893. Presented 11th May, 1894.—*Sir Richard Cartwright*. *Not printed.*
- 53.** Return to an address of the House of Commons to his excellency the Governor General, dated 10th April, 1894, for copies of all correspondence between Mr. L. Vankoughnet and the government, or any member, or department, relating to his superannuation, and of all communications or reports to council or the treasury board or any member of the government, relating to such superannuation, and of any orders in council dealing with the same. Presented 17th April, 1894.—*Mr. Mulock*. *Not printed.*
- 54.** Return to an order of the House of Commons, dated 1st March, 1893, for a return of any correspondence which may have taken place between the government and any of the railway companies which have received public lands in aid of railway construction, in reference to the prices at which these lands are held and as to the steps taken by these companies to fulfil their trust by securing the early settlement of the lands so granted. Presented 18th April, 1894.—*Mr. Mills, Bothwell*. *Not printed.*
- 55.** Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the names of officials employed in connection with the Canadian exhibit at the Columbian exposition from the province of Nova Scotia, showing their official position, amount of salaries paid and dates at which such employment ceased. Presented 20th April, 1894.—*Mr. Patterson, Colchester*. *Not printed.*
- 56.** Return to an order of the House of Commons, dated 10th April, 1894, for a statement in the form of Table C in the blue-book already published on the French treaty, for the years ending 30th June, 1892 and 1893. Presented 20th April, 1894.—*Mr. Laurier*. *Printed for sessional papers only.*
- 56a.** Supplementary return to an order of the House of Commons, dated 10th April, 1894, containing correspondence and other matter relating to the French treaty. Presented 3rd July, 1894.—*Mr. Laurier*. *Printed for sessional papers only.*
- 57.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all correspondence between the government and George Goodwin in connection with the transfer of his contracts or any of his contracts on the Soulanges canal. Presented 23rd April, 1894.—*Mr. Charlton*. *Not printed.*
- 57a.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for copies of all communications in the form of letters, petitions and reports, from 1st April, 1887, to 1st March, 1894, between the government and Mr. J. B. Many, or the municipal council of St. Luc, in the county of St. Jean, in relation to the construction of a swing bridge on the Chambly canal, opposite the south-east end of Ste. Thérèse island, in the Richelieu river. Presented 4th June, 1894.—*Mr. Béchard*. *Not printed.*
- 57b.** Return to an address of the House of Commons to his excellency the Governor General, dated 28th May, 1894, for : 1. Copies of all the reports of the engineers recommending that certain changes be made in the original contract, both in the materials and the nature of the works entering into the construction of the locks and other masonry on sections 1 and 2 of the Soulanges canal, giving the reasons why such changes should be made and the names of the engineers who recommended such changes. 2. Copies of all the correspondence exchanged between the engineers, the department of railways and canals, the contractor and other persons in connection with those changes, and copies of all orders in council in relation thereto. Presented 6th June, 1894.—*Mr. Tarte*. *Not printed.*

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- 57c.** Return to an order of the House of Commons, dated 16th April, 1894, for copies of all advertisements inviting tenders for the construction of sections 1 and 2 of the Soulanges canal; also copies of specifications connected with said work, copies of extensions of said specifications and tenders with estimated quantities and work to be done according to engineer's estimate; also copies of all tenders, copies of contracts let, of correspondence which took place between the contractors tendering for this work and the contractor to whom the contracts were awarded and the department of railways and canals in this matter, copies of all reports of engineers since the letting of the contract. Presented 14th June, 1894.—*Mr. Tarte* *Not printed.*
- 57d.** Return to an order of the House of Commons, dated 14th May, 1894, for: 1. Copies of all correspondence between the department of railways, the minister of public works and any other persons in relation to sections 12 and 13 of the Soulanges canal. 2. Copies of the call for tenders and of all tenders received. 3. Copies of contracts awarded. Presented 14th July, 1894.—*Mr. Tarte* *Not printed.*
- 58.** Return to an order of the House of Commons, dated 27th July, 1891, for copies of all correspondence relating to application for increase of salary of Judge Johnstone, county court judge for Halifax county, Nova Scotia. Presented 25th April, 1894.—*Mr. Fraser* *Not printed.*
- 59.** Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the names of all prisoners who have died in penitentiaries in Canada during the last ten years, with the cause of death and the length of their last sickness in each case. Presented 25th April, 1894.—*Mr. Martin* *Not printed.*
- 59a.** Return to an address of the House of Commons to his excellency the Governor General of the 10th April, 1894, for a statement showing amount of receipts each month for gate money at Kingston penitentiary between 1st January, 1887, and 1st January, 1894. Statement showing disposition of these moneys, including statement showing the amount of those moneys deposited in any banks, with the names of such banks and particulars as to whose credit such deposits were made. Presented 26th April, 1894.—*Mr. Mulock* *Not printed.*
- 59b.** Return to an address of the House of Commons to his excellency the Governor General, dated 13th March, 1893, for a statement showing: (a.) Amount of money received as visitors' entrance fees at the Kingston penitentiary during each year from 31st January, 1885, to 1st February, 1893. (b.) Payments out of said moneys to the receiver general, and disposition of such funds. (c.) Particulars of goods manufactured and work done at said institution for any of its officers, showing who supplied the material for such goods, what sums were charged to said officers for said goods, and what sums have been actually paid during each of said years for said goods. (d.) Quantities of coal oil and gas supplied such officers, amount paid therefor, and when. (e.) Amount of laundry work done at said institution during said dates, for whom done, amount charged and paid therefor, with dates of such payments and names of persons making such payments. Presented 26th April, 1894.—*Mr. Mulock* *Not printed.*
- 59c.** Return (in part) to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all charges brought to the attention of the government or any department since 1891 in regard to any matters connected with the Kingston penitentiary, and the British Columbia penitentiary; of all appointment of persons to make investigations into any such charges, including their instructions; of all correspondence between any of such persons and any member of the government or department; of all evidence taken on any such inquiries; of all reports thereon, including any schedules in connection with such reports; and of all other documents and papers relating to any alleged irregularities in connection with the management of said institutions since 1891. Presented 1st May, 1894.—*Mr. Mulock* *Not printed.*
- 59d.** Supplementary return to no. 59c. Presented 15th May, 1894.—*Mr. Mulock* *Not printed.*
- 59e.** Further supplementary return to no. 59c. Presented 15th May, 1894.—*Mr. Mulock* *Not printed.*
- 60.** Return to an order of the House of Commons, dated 1st March, 1893, for a return of the report or reports of plans and surveys of the Galops Rapids channel, made by Mr. Kennedy. Presented 26th April, 1894.—*Mr. Reid* *Not printed.*

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- 61.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all reports made to the department of the interior or to the superintendent general of Indian affairs as to the value of the Thousand Islands and any offers received for the purchase of the same. Presented 26th April, 1894.—*Mr. Mills (Bothwell)*.
Printed for distribution only.
- 62.** Return to an order of the House of Commons, dated 16th April, 1894, for copies of report of engineer who inspected river Aux-Roseaux, river Aux-Rats and river La-Seine, in the electoral district of Provencher. Presented 1st May, 1894. *Mr. LaRivière*.....*Not printed.*
- 63.** Return to an order of the House of Commons, dated 30th March, 1894, for a return of all papers and correspondence relative to a claim for compensation for railway damages made by one Charles Coffin, of Midgell, Prince Edward Island, in the railway department of the government. Presented 1st May, 1894.—*Mr. Davies*.....*Not printed.*
- 64.** Return to an order of the House of Commons, dated 23rd April, 1894, for the report of the commission appointed to inquire into all matters concerning the Trent Valley canal. Presented 1st May, 1894.—*Mr. Hughes*.....*Not printed.*
- 65.** Return to an order of the House of Commons, dated 25th April, 1894, for a return giving the amount paid out of the Six Nation Indians' fund (by way of gift or loan) to individual members from the year 1886 to date, stating in each case: The name of the person, the fact of whether gift or loan, the date when paid, the amount, the reason for the gift or loan, the authority for such gift or loan, the conditions on which such loan was made, the provision for repayment, the amount repaid.—Presented 2nd May, 1894.—*Mr. Paterson (Brant)*.....*Not printed.*
- 65a.** Return to an order of the House of Commons, dated 16th April, 1894, for a return showing the amount of money that has been paid out of the funds of the Six Nation Indians for the payment of debts incurred by individual members thereof since the year 1886, and giving: 1. The names of the several persons who incurred the debts, with the separate amounts, the date or dates when incurred, and the proportion thereof that has been paid. 2. The names of the creditors to whom the payments were made, the dates when paid, with the total sum paid to each of such creditors; and stating in each case the authority given for incurring the debt, the authority for payment of the same, and whether such amounts have been repaid to the fund in whole or in part out of the annuities of the individuals on whose account the payments were made, and whether such was the condition on which such payments were authorized. Presented 14th May, 1894.—*Mr. Paterson, (Brant)*.....*Not printed.*
- 65b.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for copies of all petitions from the Indians of the Saugeen reserve claiming the exclusive right of fishing in French bay, lake Huron, of all answers to the same, and of all departmental orders in reference to that subject. Presented 16th May, 1894.—*Mr. Laurier*.....*Not printed.*
- 65c.** Supplementary return to no. 65b. Presented 23rd July, 1894.—*Mr. Laurier*.....*Not printed.*
- 65d.** Return to an address of the Senate to his excellency the Governor General, dated 10th April, 1894, for copies of all petitions or communications to the governor general, or the government, or any member thereof, asking for interference with the death sentence passed by Mr. Justice Harrison upon the two Chehalis Indians, Peter and Jack, in November, 1893, for the murder of the late Albert Edward Pittendrigh, in New Westminster, British Columbia, on the 27th October, 1892; of all replies thereto, and all correspondence between any member of the government and any other person on the subject of commutation of such sentence; of all reports or recommendations on the said subject by any member of the government to his excellency, and of all replies thereto, and of all orders in council in anywise bearing upon the subject of the commutation of said death sentence to imprisonment for life. Presented 14th May, 1894.—*Hon. Mr. MacInnes*.....*Not printed.*
- 66.** Return to an order of the House of Commons, dated 30th March, 1894, for all papers and correspondence in connection with the establishment of a government cattle ranche near Fort Macleod, North-west Territories, including the purchase of cattle for said ranche; the disposal of said cattle, and the management and disposition made of said ranche. Also a statement showing the amount of moneys paid for cattle placed upon said ranche, and for all other expenses incurred in connection with the same, also the total amount of moneys received for the sale of cattle from said ranche, and all other sources in connection with the same; which statement shall show the balance

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- to the credit or debit of said ranche on the first day of January last, and shall further give the names of all parties indebted to said ranche account for cattle purchased or for any other property or material, with the amount due from each of said parties, if any. Presented 2nd May, 1894.—*Mr. Charlton*..... *Not printed.*
67. Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the amount paid to railways or steamship companies, as a bonus for bringing settlers to Manitoba or the Territories, in 1891, 1892 and 1893, and a list of settlers so brought, showing their names and locations. Presented 11th May, 1894.—*Mr. Martin*..... *Not printed.*
68. Return to an order of the House of Commons, dated 30th April, 1894, for copies of all communications received by the minister of agriculture in relation to the establishment of the bureau of labour statistics for the Dominion. Presented 14th May, 1894.—*Mr. Lépine*..... *Not printed.*
69. Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the quantity of butter manufactured at the experimental creameries, established at Elgin and Woodstock, in the province of Ontario, from the time they were established up to the 1st of January, 1894; the number of sales made; where sold, and the amounts realized. Copies of all letters, reports, or other correspondence, especially the report of Clement & Son, of Glasgow, relating to the prices realized, and the condition of the goods when put upon the market. The amounts of money spent, and the different purposes for which the money was used. Presented 14th May, 1894.—*Mr. McMillan*..... *Not printed.*
70. Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the number of homesteads taken up in Manitoba during the years 1892 and 1893, and the number of homesteads cancelled in Manitoba during said years, in each case showing the municipalities in which the homesteads were located. Presented 18th May, 1894.—*Mr. Martin*..... *Not printed.*
71. Return to an order of the House of Commons, dated 25th April, 1894, for a return showing: 1. The total number of depositors in the Dominion and post office savings banks. 2. The number of said depositors having deposits of \$1,000 or upwards and the total amount held by them. 3. The number having deposits of \$500 and over, not exceeding \$1,000, and the total amount held by them. 4. The number of depositors having deposits of less than \$500 and the total amount held by them. 5. The number of depositors not residing in Canada and the total amount held by them. Presented 18th May, 1894.—*Sir Richard Cartwright*..... *Not printed.*
72. Return to an address of the House of Commons to his excellency the Governor General, dated 7th May, 1894, for a copy of the order in council authorizing the sale of lot 16, concession 12, township of Luther, in the county of Wellington, for \$800 to John McNab and John Gallagher. Presented 22nd May, 1894.—*Mr. McMullen*..... *Not printed.*
- 72a. Supplementary return to no. 72. Presented 14th June, 1894.—*Mr. McMullen*..... *Not printed.*
73. Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the sums of money paid to Mr. A. F. Wood, government valuator, for services, maintenance and transport during the years 1891-1892-1893, and the particular pieces of land or other property valued during those years. Presented 23rd May, 1894.—*Mr. McMullen*..... *Not printed.*
74. Return to an address of the House of Commons to his excellency the Governor General, dated 16th April, 1894, for copies of all orders in council in force in Canada (provinces of Lower Canada and Upper Canada) in 1858, concerning any drawback or bounty with respect to the building of Canadian ships, barques and other vessels; and also all orders in council amending the same, or concerning the same from 1858 up to the beginning of the confederation. Presented 23rd May, 1894.—*Mr. Amyot*..... *Not printed.*
- 74a. Return to an address of the House of Commons to his excellency the Governor General, dated 10th April, 1894, for copies of all orders in council from the origin of confederation up to the year 1879, inclusive, respecting any drawback or bounty with respect to the building of Canadian ships, barques or other vessels. Presented 30th May, 1894.—*Mr. Amyot*..... *Not printed.*
75. Return to an order of the House of Commons, dated 7th May, 1894, for copies of all calls for tenders, tenders received, contracts made, correspondence, telegrams, letters and papers relative to the public work (wharf or breakwater) at Grand Etang, Cape Breton; together with a statement of all moneys advanced or paid on such contract, with dates of payment. Presented 29th May, 1894.—*Mr. Davies*..... *Not printed.*

VOLUME 17—*Continued.*

- 75a.** Return to an order of the House of Commons, dated 6th February, 1893, for copies of all letters, petitions, surveys and reports in the possession of the government, relating to the threatened destruction of, and claims for, repairs on the breakwater at Sandford, in the county of Yarmouth, N.S. Presented 29th May, 1894.—*Mr. Flint* *Not printed.*
- 75b.** Return to an order of the House of Commons, dated 6th February, 1893, for copy of the report of government surveys on Wood island breakwater, P.E.I. Presented 29th May, 1894.—*Mr. Welsh*.
Not printed.
- 75c.** Return to an order of the House of Commons, dated 15th March, 1893, for copies of all reports, correspondence or other documents, not already brought down, relating to the state of repair of the breakwater at Rustico, P.E.I. Presented 29th May, 1894.—*Mr. Davics*.....*Not printed.*
- 75d.** Return to an order of the House of Commons, dated 1st March, 1893, for a statement showing : 1. What is the total sum spent by the government since confederation in each province of the Dominion on the public works classified as (1) harbours, piers and breakwaters, (2) improvements of rivers, and (3) dredging and dredges. 2. How much of the sum so spent in the province of Quebec was expended on works within the harbour of Montreal. 3. (1) How much money the government has loaned to the harbour commissioners of Quebec towards the construction of the new harbour works in that city ; and (2) what amount of interest, derived from the revenues of the said works, have the harbour commissioners paid to the government in respect of the interest due on the said loans ; and (3) how many years' interest, if any, are in arrears. 4. (1) How much money the government has lent to the harbour commissioners of Montreal towards the construction of harbour works in that city ; and (2) how much interest is due thereon. Presented 12th July, 1894.—*Mr. Lépine*.....*Not printed.*
- 75e.** Return (in part) to an order of the House of Commons, dated 30th March, 1894, for a return giving the total cost of the Cockburn island wharf and dock (lake Huron) ; the name of the contractor or contractors ; the date of its completion ; the number of sailing vessels that have called ; the quantity of freight imported and exported since its completion ; the number of steamers that made during the season regular calls at the wharf since its completion. Presented 12th July, 1894.—*Mr. McMullen* *Not printed.*
- 76.** Return to an order of the House of Commons, dated 14th May, 1894, for copies of all letters, reports of engineers or other papers in the hands of the government relating to the condition of the Pickets pier and the non-expenditure thereon of the sum voted last year for the purpose of repairing said pier. Presented 29th May, 1894.—*Mr. Borden*.....*Not printed.*
- 77.** Return to an order of the House of Commons, dated 18th April, 1894, for a statement of all sums paid by the government for the construction of the river Yamaska dam, under the first contract and subsequently thereto up to this date. Presented 29th May, 1894.—*Mr. Laurier*..... *Not printed.*
- 77a.** Return to an order of the House of Commons, dated 2nd May 1892, for copies of report of any inquiry held under the authority of the department of public works with a view to estimate the losses inflicted on proprietors of the commune of Yamaska, by the erection of a dam in the Yamaska river. Presented 4th June, 1894.—*Mr. Laurier*..... *Not printed.*
- 77b.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all letters, papers and statements in connection with awarding contract to William H. Davis & Sons for constructing a dam at Sheik's island, in connection with the Cornwall canal. Presented 5th June, 1894.—*Mr. Charlton* *Not printed.*
- 77c.** Supplementary return to no. 77b. Presented 15th June, 1894.—*Mr. Charlton* *Not printed.*
- 78.** Return to an address of the House of Commons to his excellency the Governor General, dated 10th April, 1894, for copies of all petitions, letters, plans, deeds and other documents respecting the claim of the Hurons of Lorette in relation to the seigniori of Sillery. Presented 29th May, 1894.—*Mr. Frémont* *Not printed.*
- 79.** Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the amount of timber dues collected at Quebec for each year for the last ten years. The quantity of timber culled each year, and the wages paid to cullers and staff. Presented 30th May, 1894.—*Mr. McMullen*..... *Not printed.*

VOLUME 17—*Continued.*

- 79a.** Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the quantity of timber that passed through the cullers' hands and was culled each year at Montreal, for the last ten years. The amount of fees collected for each year during the same period, and the amount of wages paid to the cullers and staff at Montreal for the same time. Presented 30th May, 1894.—*Mr. McMullen* *Not printed.*
- 79b.** Return to an order of the House of Commons, dated 7th May, 1894, for a return showing: 1. How much timber has been disposed of in townships 1, 2, 3 and 4, in ranges 14, 15, 16 and 17, east of the 1st principal meridian, and also on the Whitemouth river. 2. To whom said timber has been disposed of. 3. In what way said timber has been disposed of. 4. Prices realized for same. 5. Copies of all advertisements in connection with same, with names of newspapers in which same appeared and dates of insertion. 6. How much timber still remains undisposed of in said townships. Presented 29th June, 1894.—*Mr. Martin* *Not printed.*
- 79c.** Return to an order of the House of Commons, dated 25th April, 1894, for a statement of all timber licenses granted since January 1st, 1887, showing the date of each grant, the location, the area of the same, the name of the grantee, the bonus, if any, paid upon the same, whether disposed of: (a) At public auction duly advertised, where the public were invited to compete. (b) At auction where only applicants for the berth or limit were invited to bid. (c) By private application. (d) If in neither of the ways above mentioned, then stating in what way disposal and grant was made. (e) Length of public notice in each case when limits were sold either at public auction or by other form of public competition. Also a summary statement giving total area granted and total amount of bonuses received. Presented 12th July, 1894.—*Mr. Charlton* *Not printed.*
- 80.** Return to an order of the House of Commons, dated 28th May, 1894, for copies of all correspondence between D. J. Hughes, Esq., county judge of Elgin, Ont., and the officials of the government printing office, in regard to the printing of the last revised voters' list for Elgin. Presented 4th June, 1894.—*Mr. Casey* *Not printed.*
- 81.** Return to an order of House of the Commons, dated 14th May, 1894, for a return showing the amount and value of crucible steel imported into Canada free of duty in each year since 1885, under the provisions of order in council of 6th November, 1885. Also amount and value of lastings and mohair cloth imported into Canada free of duty in each year since 1885, under the provisions of order in council of 6th November, 1885. Presented 4th June, 1894.—*Mr. Charlton*.
Not printed.
- 81a.** Return to an order of the House of Commons, dated 14th May, 1894, for a return showing the amount and value of hatters' bands, bindings, tips, and sides and linings, both tips and sides, imported into Canada in each year since 1885, under provisions of order in council of 5th July, 1886. Also amount and value of steel strip for buckthorns and plain strip fencing imported into Canada free of duty since 1885, under provisions of order in council of 17th July, 1886. Also amount and value of wire rope imported into Canada free of duty since 1885, under provisions of order in council of 17th July, 1886. Also amount and value of twisted brass and copper wire imported into Canada free of duty since 1885, under provisions of order in council of 20th July, 1886. Also amount and value of yarn spun from the hair of the alpaca or angora goat, imported into Canada free of duty since 1885, under provisions of order in council of 18th November, 1886. Presented 4th June, 1894.—*Mr. Charlton* *Not printed.*
- 81b.** Return to an order of the House of Commons, dated 14th May, 1894, for a return showing the quantity and value of felloes of hickory wood imported into Canada in each year free of duty since 1887, under provisions of order in council of 16th November, 1888. Also quantity and value of homo spring steel wire, smaller than no. 9 and not smaller than no. 15, imported into Canada free of duty in each year since 1837, for the use of manufacturers of mattresses, under provisions of order in council of 6th December, 1888. Presented 4th June, 1894.—*Mr. Charlton* *Not printed.*
- 81c.** Return to an order of the House of Commons, dated 14th May, 1894, for a return showing the value of sweat leathers imported into Canada free of duty in each year since 1886, under provisions of order in council of 1st July, 1887. Also the value of square reeds, rawhide centres, textile leather or rubber heads, thumbs and tips, and steel, iron or nickel caps for whip ends imported into Canada free of duty in each year since 1886, under provisions of order in council of July 2nd, 1887. Also value of copper rollers for use in calico printing imported into Canada free of duty in each year since 1886, under provisions of order in council of 22nd November, 1887. Also quantity and

VOLUME 17—*Continued.*

- value of steel of no. 12 gauge and down to no. 30 gauge imported into Canada free of duty in each year since 1887, under provisions of order in council of 11th July, 1888. Also quantity and value of yarns, of wool and worsted, imported into Canada free of duty for use of manufacturers in each year since 1887, under provisions of order in council of 11th July, 1888. Also quantity and value of jute yarn, cotton yarn finer than no. 40; and wire of iron or steel, galvanized or tinned, or coppered, or not, of no. 16 gauge or smaller, imported into Canada free of duty in each year since 1887, under provisions of order in council of 11th July, 1888. Presented 4th June, 1894.—*Mr. Charlton*.....*Not printed.*
- 82.** Return to an order of the House of Commons, dated 25th April, 1894, for copies of all complaints made by one Etienne Tremblay, since 1st November, 1893, against Joseph Placide Rocheleau, postmaster of Pauline, in the county of Rouville, P.Q.; and of the report of the post office inspector who inquired into said complaint, or of any other official charged with such inquiry. Presented 5th June, 1894.—*Mr. Fréchette*.....*Not printed.*
- 83.** Return to an order of the House of Commons, dated 2nd May, 1894, for a return giving the names of the junior judges in the province of Ontario and dates when appointed, the name and population of the county to which appointed, also the salary and allowance of each of such judges. Presented 5th June, 1894.—*Mr. Lister*.....*Not printed.*
- 84.** Return to an address of the House of Commons to his excellency the Governor General, dated 7th May, 1894, for copies of all letters, proposals, cablegrams and correspondence since the 1st of January, 1890, between the government and any member thereof and any person, firm or company in relation to establishing a fast Atlantic steamship line between Canada and Great Britain, and also a line between Canada and France, and in relation to the subsidies for such services asked for or proposed to be given by the government, and any draft or completed contracts for such steamship service. Presented 6th June, 1894.—*Mr. Mulock*.....*Printed for distribution only.*
- 84a.** Supplementary return to no. 84. Presented 29th June, 1894.—*Mr. Mulock*.
Printed for distribution only.
- 84b.** Further supplementary return to no. 84. Presented 5th July, 1894.—*Mr. Mulock*.
Printed for distribution only.
- 85.** Return to an address of the House of Commons to his excellency the Governor General, dated 6th February, 1893, for copies of all correspondence, papers and documents, not already laid before the house, in reference to negotiations and communications between the government and the United States, in reference to reciprocity, canal tolls and wrecking and towing. Presented 11th June, 1894.—*Mr. Tisdale*.....*Not printed.*
- 86.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all correspondence, instructions, orders in council and reports about the boundary line between Alaska and British Columbia not already laid before this house. Presented 11th June, 1894.—*Sir Hector Langevin*.....*Not printed.*
- 87.** Return to an order of the House of Commons, dated 7th May, 1894, for a return showing in detail all sums of money in the hands of the government held as security for the performance of contracts completed, the name of each contractor who deposited the money, date of each such deposit, and amount of interest accrued on each deposit. Presented 11th June, 1894.—*Mr. Lister*.....*Not printed.*
- 88.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for a return of all correspondence, telegrams, reports to council, orders in council, or departmental orders or instructions relative to the employment of certified captains or mates on steamers plying in the waters or ferries of the Dominion, or to the running of such steamers or ferries without such captains or mates. Presented 19th June, 1894.—*Mr. Davies*.....*Not printed.*
- 89.** Return to an address of the House of Commons to his excellency the Governor General, dated 14th May, 1894, for copies of all correspondence between the minister of railways and the Rev. A. E. Burke and others having reference to the moving of the flag station from Mill river, on the Prince Edward Island Railway, to Howlan road, and all telegrams and documents having reference to the same, as well as all petitions, etc., against the removal of said flag station. Presented 19th June, 1894.—*Mr. Perry*.....*Not printed.*

VOLUME 17—*Continued.*

90. Return to an address of the House of Commons to his excellency the Governor General, dated May, 1894, for copies of all correspondence between J. B. Wright, M.D., V.S., and the government, or any member, department or officer of the government, and of all correspondence between the Grand Trunk Railway and the government, or any member, department or officer of the government, and of all correspondence between Mr. A. Brush and the government, or any member, department or officer of the government, and of all correspondence between the imperial authorities, or any one on their behalf, and the government of Canada, or any member, department or officer thereof, from, and including, the year 1882 until, and including, the year 1891, regarding the inspection of cattle passing through Canada from the United States. Presented 21st June, 1894.—*Mr. Mulock* *Printed for sessional papers only.*
91. Return to an order of the House of Commons, dated 16th April, 1894, for a return showing all lands allotted to Half-breeds in Manitoba for which patents have not been issued, giving along with a description of the land, the name of the allottee and the reasons why the patent has not been issued. Presented 21st June, 1894.—*Mr. Martin* *Not printed.*
92. Return to an order of the House of Commons, dated 21st May, 1894, for a return of the order, minute or direction authorizing the collector of customs at Woodstock, Ont., to admit free of duty certain goods consisting of vestments or other church articles for the use of the Roman catholic church at Woodstock, consigned to the Reverend Father Brady, of Woodstock, in the month of February, 1894. 1. The decision upon which the collector acted in admitting such goods free of duty. 2. All correspondence between the controller of customs or other person in the department of customs relating thereto. 3. Copies of the letters and correspondence which passed between the Rev. J. C. Farthing, of Woodstock, and the controller of customs, with reference to the admission of such goods and the alleged unfairness with which Mr. Farthing had been treated on the importation by him of a similar class of goods for the use of the Anglican church at Woodstock, of which he is rector. 4. And if duty has since been exacted upon the said articles, or any of them, a copy of the entry or minute in respect thereto and the amount of duty paid thereon. Presented 29th June, 1894.—*Mr. McCarthy* *Not printed.*
93. Return to an order of the House of Commons, dated 7th May, 1894, for a return showing the names of all persons appointed to act as what are known as return-men, in connection with immigration work, the period during which each worked, the amount of money paid to each, the names of the settlers brought to Canada by each return-man, and the places in which such settlers were located. Also statement showing what arrangements are made with these return-men. Presented 29th June, 1894.—*Mr. Martin*..... *Not printed.*
94. Return to an order of the House of Commons, dated 28th May, 1894, for a return showing the date on which the steamer "Stanley" commenced running between Charlottetown, P.E.I. and Pictou, N.S.; the date said steamer commenced running between Georgetown, P.E.I. and Pictou; how many trips were made; the date of each trip; how many mail bags were carried each trip; the date at which said steamer stopped carrying mails; the number of passengers and the amount of freight carried to and from Prince Edward Island; the amount of expenses and revenue for the winter 1893-94, in connection with said service. Presented 29th June, 1894.—*Mr. Perry*.
Not printed.
- 94a. Return to an address of the Senate to his excellency the Governor General, dated the 14th June, 1894, for a statement giving in detail the days, during the month of January, February, March and April last, on which the steamer "Stanley" crossed between Prince Edward Island and the mainland, such statement to show separately the days on which the said steamer made single and return trips, and also the ports of departure from either side. Also for a statement covering the same period, giving in detail the days on which the government ice-boats crossed between Cape Traverse and Cape Tormentine, such statement to show separately the days on which single and return trips were made. Also for a statement giving in detail the days during the same period on which no mails were conveyed from the mainland to Prince Edward Island, and from Prince Edward Island to the mainland. Presented 6th July, 1894.—*Hon. Mr. Ferguson (Queen's, P.E.I.)*
Not printed.
95. Return to an address of the Senate to his excellency the Governor General, dated 19th June, 1894, for a copy of the report made on the 5th May, 1891, by Sir Douglas Fox, regarding the proposed tunnel under the Straits of Northumberland, without the plans. Also copies of reports on the same subject by Mr. Francis Bain, dated the 9th and 18th of December, 1890, and the 14th March, 1891. Presented 5th July, 1894.—*Hon. Mr. Ferguson (Queen's, P.E.I.)*
Printed for sessional papers only.

VOLUME 17—*Continued.*

- 96.** Return to an address of the House of Commons to his excellency the Governor General, dated 27th April, 1892, for copies of all correspondence, memorials, departmental orders and orders in council, respecting or in any way relating to the removal of the export duty from saw-logs and other un-manufactured lumber exported from Canada to the United States. Presented 9th July, 1894.—*Mr. Rider*..... *Not printed.*
- 97.** Return to an order of the House of Commons, dated 9th May, 1892, for a copy of the report of the inspector of customs, Nova Scotia, in reference to the establishment of a port of entry at Whyco-comagh, in the county of Inverness. Presented 9th July, 1894.—*Mr. Cameron*..... *Not printed.*
- 97a.** Return to an order of the House of Commons, dated 9th May, 1892, for a copy of the report of the inspector of customs, Nova Scotia, in reference to the establishment of a port of entry at West Bay, in the county of Inverness. Presented 14th July, 1894.—*Mr. Cameron*..... *Not printed.*
- 98.** Return to an address of the House of Commons to his excellency the Governor General, dated 18th June, 1894, for a return of all charges, complaints, letters, telegrams, correspondence, reports or orders relative to the dismissal or removal of John McLeod as inspector of the repairs of the Broad Cove Marsh pier, Cape Breton. Presented 12th July, 1894.—*Mr. Davies*..... *Not printed.*
- 99.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for the production of all orders in council, correspondence, instructions to officers of the department of public works, and reports of such officers respecting the improvement of St. Andrew's rapids in the Red river of the North. Presented 12th July, 1894.—*Mr. Martin*..... *Not printed.*
- 100.** Return to an address of the House of Commons to his excellency the Governor General, dated 6th February, 1893, for copies of all orders in council now in force regulating the slaughtering of swine for exportation in bond, passed under authority of an act respecting customs, cap. 32, Revised Statutes, sec. 93; and for a copy of the quarantine regulations governing the importation of such swine into Canada for the purpose of slaughtering in bond. Presented 14th July, 1894.—*Mr. Smith (Ontario)*..... *Not printed.*
- 101.** Return to an order of the House of Commons, dated 28th May, 1894, for a detailed report showing the prizes awarded by the judges or jury at the Chicago Columbian exposition for the work of pupils of primary and special schools of every kind and degree, and also to pupils of secondary educational institutions of each of the provinces of Canada. Presented 14th July, 1894.—*Mr. Lachapelle*..... *Printed for sessional papers only.*
- 102.** Return to an order of the House of Commons, dated 21st May, 1894, for list of persons in Manitoba who have not as yet repaid the loans made to them, in or about the year 1876, for seed-grain, etc., with statement of the amount owing by each person and the interest claimed, up to 1st January, 1894, on each such amount. Also a list, showing the amounts of mortgages received as collateral security for each loan, with description of land mortgaged, with name of proprietor and name of borrower if he be another person. Presented 18th July, 1894.—*Mr. LaRivière*..... *Not printed.*
- 103.** Return to an order of the House of Commons, dated 28th May, 1894, for: 1. A statement showing the quantities of distilled and fermented liquors, under the different names as given in the trade returns, imported into and taken for consumption in Canada, from 1883 to 1893, both years included, computed in imperial gallons; the value of the same, and the duty paid thereon. 2. The quantity of distilled and fermented liquors, under the different names given in the inland revenue returns, manufactured in Canada and taken for consumption therein; the value of the same, and the duty paid thereon for the same years. 3. The amount of materials used in brewing and distilling alcoholic liquors in the several provinces of Canada during the same years. Presented 19th July, 1894.—*Mr. Flint*..... *Not printed.*
- 104.** Return to an order of the House of Commons, dated 28th May, 1894, for a statement showing the number of breweries, distilleries and maltsters' establishments in Canada in the year 1891; the amount of capital invested therein; the value of the output; the amount of wages paid; number of employees, and the revenue derived therefrom. Presented 19th July, 1894.—*Mr. Flint*..... *Not printed.*
- 105.** General statements and returns of baptisms, marriages and burials in the districts of Bellechasse, Chicoutimi, Gaspé, Kamouraska, L'Islet, Montmagny, Ottawa, and Saguenay. Presented 20th July, 1894, by Hon. Mr. Speaker..... *Not printed.*
- 106.** Return to an address of the House of Commons to his excellency the Governor General, dated 4th June, 1894, for copies of all correspondence, petitions and memorials in relation to the reduction or abolition of the duties on Canadian tobacco, or in relation to any possible changes in the inland revenue laws in that behalf. Presented 23rd July, 1894.—*Mr. Brodeur*..... *Not printed.*

57 Victoria.

Sessional Papers (No. 11.)

A. 1894

TWENTY-SIXTH ANNUAL REPORT

OF THE

DEPARTMENT OF MARINE AND FISHERIES

1893

M A R I N E

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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

1894

[No. 11—1894] *Price 15 cents*

Marine and Fisheries.

*To His Excellency the Right Honourable SIR JOHN CAMPBELL HAMILTON-GORDON, EARL
OF ABERDEEN, Governor General of Canada, etc., etc.*

MAY IT PLEASE YOUR EXCELLENCY :

I have the honour to submit herewith, for the information of Your Excellency and the Legislature of Canada, the Twenty-sixth Annual Report of the Department of Marine and Fisheries, Marine Branch.

I have the honour to be
Your Excellency's most obedient servant,

CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA, 1st December, 1893.

Marine and Fisheries

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REPORT OF THE DEPUTY MINISTER.

To the Honourable

SIR CHARLES HIBBERT TUPPER, K.C.M.G.,
Minister of Marine and Fisheries.

SIR,—I have the honour to report on the transactions of the Marine Branch of this department for the fiscal year ended 30th June last, and to give an account of a portion of the business up to date.

In appendices to this report will be found returns from the Chairman of the Boards of Steamboat Inspection and Examiners of Masters and Mates; the reports of the Toronto, Belleville, Montreal, Quebec, Three Rivers, Pictou and North Sydney Harbour Commissioners, the Pilotage Authorities, the Harbour Masters and Port Wardens, together with a statement of wrecks and casualties.

The total amount expended on the various branches of the Public Service during the fiscal year ended 30th June last was \$842,242.82. The salaries of the established staff, including Marine and Fisheries, amounted to \$45,801.02.

The total amount voted by Parliament was \$881,532.18, not including the departmental salaries. It will thus be seen that during the fiscal year the expenditure was \$39,289.90 less than the amount appropriated by Parliament.

The whole number of persons in the outside service of the Marine Branch at the date of the report is 1,536.

During the past fiscal year the expenditure for maintenance of Lighthouse and Coast Service amounted to \$475,885.45, and for construction of lights, \$27,474.80; total for maintenance and construction, \$503,360.25, while for the previous year the expenditure for Lighthouse and Coast Service, including construction, was \$485,988.78, showing an increase of expenditure for the year ending 30th June last of \$17,371.47. The appropriation for this service was \$525,235.00; the expenditure being \$21,874.75 less than the appropriation of Parliament for the fiscal year.

LIGHTHOUSE SERVICE.

The lighthouse service of the Dominion is divided as follows:—The Ontario division, embracing all lights from Montreal westward to the North-west Territories; the Quebec division, extending below Montreal and including the River and Gulf of St. Lawrence and the Strait of Belle Isle; the Nova Scotia division, including St. Paul's Island, Cape Breton, Sable Island and Cape Race, Newfoundland; the New Brunswick division, the Prince Edward Island division, and the British Columbia division, each including the lights within the Provincial boundaries. The total number of light stations, light-ships and fog-alarm stations in the Dominion on the 30th June, 1893, was 619, and of lights shown, 749; the number of steam-whistles and fog-horns, 58; the number of light-keepers and engineers of fog-alarms with masters of lightships was 624.

The following is the number of lights shown, of fog-whistles and fog-horns in the Dominion on the 31st of December of each year, from 1868 to date, inclusive.

These numbers include the light stations on the coast of Newfoundland, maintained by the Dominion.

	Light Stations.	Light-houses.	Fog-whistles.	Fog-horns.
31st December, 1868.	198	227	2	.....
do 1869.	219	233	2	.....
do 1870.	240	278	4	.....
do 1871.	264	297	8	.....
do 1872.	280	314	13	.....
do 1873.	316	363	17	.....
do 1874.	342	384	18	.....
do 1875.	377	444	22	.....
do 1876.	407	488	24	.....
do 1877.	416	509	25	2
do 1878.	427	518	25	4
do 1879.	443	542	23	6
do 1880.	452	551	22	7
do 1881.	462	553	23	9
do 1882.	470	562	23	9
do 1883.	484	578	23	9
do 1884.	507	597	23	10
do 1885.	526	617	23	12
do 1886.	534	625	23	16
do 1887.	561	658	23	24
do 1888.	569	664	23	27
do 1889.	579	675	24	29
do 1890.	599	705	23	32
do 1891.	605	710	23	31
do 1892.	617	741	23	34
1st do 1893	619	749	24	34

ONTARIO LIGHTHOUSE DIVISION.

This division includes the lighthouses and light-ships in that part of the province of Quebec lying west of Montreal, all the lights in the province of Ontario, embracing the lights on the Ottawa River, the St. Lawrence River above Montreal, the great lakes, and some of the smaller inland lakes, as well as a lighthouse and light-ship on Lake Winnipeg, in the province of Manitoba.

The number of lighthouses, lighted-beacons and light-ships maintained by the Dominion in the Ontario division, inclusive of the two in Manitoba, is 221, located at 178 different stations.

The number of light-keepers in this division, paid directly by the Government, is 169, but in several cases assistants are employed by keepers and paid by them out of the allowance made by the Government for that purpose.

There are also in Ontario two fog-whistles, six fog-horns and three fog-bells, all located at light stations, as well as four bell-buoys.

Besides the lights maintained by this department, as above described, there are in Ontario the following aids to navigation: two lights on swing-bridges, maintained by the owners of the bridges; a system of lights on the Murray Canal, maintained by the Department of Railways and Canals; four pairs of range lights on the Detroit and St. Clair rivières, maintained by the American vessel owners principally interested; and twelve wharf lights, maintained by the municipalities or corporations to which the wharves belong. Six of these last described stations are aided by this Department to the extent of being furnished with the necessary oil for their maintenance.

Marine and Fisheries.

The lights in this division, with the exception of those on the Bay of Quinté, the Ottawa River and the small lakes, were inspected during the months of July and August by Mr. Patrick Harty, Superintendent of Lights, and supplied with the necessary stores for annual maintenance.

In the month of October Mr. Harty inspected all the Ottawa River lights.

NEW AIDS TO NAVIGATION.

Fog-horn at Nine Mile Point, Lake Ontario.

In accordance with the decision arrived at, as indicated in last year's report, plans and specifications were prepared and tenders invited for the erection of a steam fog-horn building, at Nine Mile Point light station to replace the pole at present in use.

A contract was awarded to Mr. William Ashe, of Ottawa, who has erected the building for \$1,500, and has fitted up in it two boilers and fog-horn machines, supplied under contract by Messrs. Carrière, Laine & Company of Lévis, Quebec: the total expenditure in connection with the establishment of the fog-alarm being \$3,733.33.

Arrangements have been made to put this fog-alarm in operation in the spring of 1894.

The horn will give blasts of 8 seconds' duration with intervals of 22 seconds between them.

The fog-horn building stands immediately to the north-west of the lighthouse tower. It is square in plan, of wood, painted white with a brown roof. The horns point out to the south-west and are elevated 16 feet above the level of the lake. The machinery and boilers are in duplicate throughout so that in the event of one becoming inoperative the other may be put in operation and the alarm continued without interruption.

Parry Sound Range lights.

The range lights in the approaches to Parry Sound referred to in last year's report, have been built, but have not yet been accepted by the department.

A contract was entered into by Mr. Charles Mickler, of Collingwood, to erect the five buildings for \$3,165, and he proceeded with the work, but the reports received from the local inspector were so unsatisfactory that Mr. C. F. Cox, Assistant Engineer, was sent from Ottawa to make a special investigation. He reported so many defects that the department refused to take the buildings off the contractor's hands or to make any advance on them until the work and materials were made satisfactory. In the meantime, navigation having closed, it has become impossible to make the necessary alterations until next spring, and consequently the lights cannot be put in operation until some time after the opening of navigation.

Light on Giants Tomb.

The lighthouse on Giants Tomb Island, in the Georgian Bay, which was in course of construction when the last annual report was prepared, has been completed, and was put in operation on the opening of navigation last spring. The light is fixed white, elevated 400 feet above the level of the bay, and should be visible 11 miles from all points of approach by water.

The illuminating apparatus is dioptric of the 7th order. The lighthouse stands on the boulder and gravel beach at the southern extremity of the island, close to the water. It consists of a small wooden tower with dwelling attached painted white, the tower surmounted by an iron lantern painted red.

The height of the building from its base to the vane on the lantern is 37 feet.

The total expenditure in connection with the establishment of this light has been \$2,177.35.

Nigger Island light to replace Potter's Island light.

During the past season a complete hydrographic survey of the Bay of Quinté has been made, and the results of this survey show that the temporary light established last year on Potter's Island was not in the best position for leading through the narrow and critical channel between Nigger Island and Potter's Island. The Chief Engineer having reported that a light at this point should be built on a pier on a shoal south-west of Nigger Island, plans and specifications have been prepared and a contract has been entered into for the completion of the work by the opening of navigation next year. Mr. Wm. J. Gates, of Kingston, who submitted the lowest tender, has been awarded the contract at \$2,000.

Improvements in the light approaching French River.

In 1875 an officer of the department acting in conjunction with an officer of the department of Public Works made a survey of the mouth of French River and established four temporary lighthouses to guide vessels from the Georgian Bay to the landing place in the river, which have since been maintained by this department.

When Staff Commander Boulton surveyed that part of the Georgian Bay he reported certain changes and improvements in the arrangement of these lights desirable, and during the past year these recommendations have been carried into effect, as follows :

(1) *Bustard Rocks main light.*

The main lighthouse on the Bustard Rocks, which in addition to being a range light, is also used as a lake coast light, has been replaced by a new tower built 20 feet north-east $\frac{1}{4}$ east from the old one.

The new building is a square wooden tower, painted white, surmounted by a hexagonal iron lantern painted red. The height of the tower from its base to the vane on the lantern is 37 feet.

The light is as heretofore fixed white. It is elevated 48 feet above the level of the bay, and should be visible 12 miles from all points of approach, except over the dangerous rocks and shoals to the north-eastward and eastward. The illuminating apparatus is dioptric of the 7th order.

2.—*Bustard Rocks, front light of inner range.*

The front range lighthouse on the Bustard rocks, has been replaced by a new tower built near the site of the old one, 229 feet N.E. $\frac{1}{4}$ E. from the main light building.

It is a square wooden tower, painted white, surmounted by a square wooden lantern, painted red, and is 28 feet high from its base to the vane on the lantern.

Marine and Fisheries.

The light is as heretofore fixed white, catoptric, elevated 39 feet above the water, and is visible six miles in, and over a small arc on each side of the line of range.

The above described two lights in range lead in, from a point just clear of the north Bustard Rock, to the intersection of this range with the French River range.

(3)—*Bustard Rocks, front light of outer range (new light).*

An additional range lighthouse has been erected on the Bustard Rocks, 193 feet W. by S. from the main tower.

The building is a square wooden tower painted white, surmounted by a square wooden lantern, painted red, and is 28 feet high from the base to the vane on the lantern.

The light which was put in operation on the 16th October last, is fixed white, catoptric, elevated 27 feet above the level of the bay, and should be visible 10 miles in and over a small arc on each side of the line of range.

This light, in one with the light in the main tower, leads in E. by N. from deep water clear of Isabel Rock on the north, and of all the shoals south-west of Bustard Rocks on the south.

(4)—*French River back range light.*

The back range tower of the French River range has been replaced by a new tower built in the village 340 feet back, or N. E. by N., from the old tower. This change of site was found to be desirable because the tower in its former position was hidden by lumber piles and consequently could not be utilized as a day beacon.

The new tower is a square wooden building, painted white, surmounted by a square wooden lantern painted red, and is 33 feet high from its base to the vane on the lantern.

The light is, as heretofore, fixed red, catoptric, and should be visible six miles in and over a small arc on each side of the line of range. It is elevated 37 feet above the level of the bay.

The French River range leads in, as heretofore, from its intersection with the inner Bustard range to Lefroy Island, clear of all obstructions.

Limekiln Crossing light-vessels.

For many years past the Government of the United States of America has been occupied in cutting a channel through the rock bottom of the Detroit River, at the Limekiln Crossing above Amherstburg, Ontario. As this channel is useful principally to heavy draught American vessels, the whole expense of the work has been borne by the American Government, although most, if not all of the work has been in Canadian waters.

During the past season an application was made by the American Lighthouse Board for permission to maintain two light-vessels in Canadian waters to mark this crossing, and an Order in Council having issued giving the desired permission, the vessels were established on the 15th September last. They are flat bottom scows with trunk cabins. The hulls are white, marked with red letters on each side respectively,—“Limekiln Crossing (South)” and “Limekiln Crossing (North).” Each vessel shows one fixed white light from a lens lantern suspended 19 feet above

the water from a crane on an upright rising 3 feet above a tripod. During thick or foggy weather a bell is struck by hand.

Surprise Shoal bell buoy.

A bell buoy was moored in October last, on Surprise Shoal off Cape Croker, in the Georgian Bay. This buoy was made by the Hamilton Bridge Company, their contract price being \$600.

The work of attending to this buoy was let by contract; the tender of Captain Scott, \$175 per annum for a period of three years, being the lowest, was accepted.

Pancake Shoal bell buoy.

A similar buoy has been completed by the same company at the same price, for Pancake Shoal, at the east end of Lake Superior. The buoy was not placed this season as no tenders were received for its maintenance, but arrangements will be made to have it put in position on the opening of navigation next year.

PRINCIPAL REPAIRS AT EXISTING STATIONS.

Pointe Claire.

Twenty-five cords of riprap were placed in front of the new pier for further protection against ice shoves, at a cost of \$131.15.

Pointe aux Anglais.

As indicated in last year's report a contract for a new pier at Pointe aux Anglais light station was let to Mr. Richard Abbott, of Ottawa, last year. Mr. Abbott proceeded with the work until the close of navigation, but was not satisfied with the department's rulings with regard to the amount of work to be done and refused to complete it. The work was consequently completed by the department under the direction of Mr. W. H. Noble, foreman of works, the cost of completion, \$892.47, being deducted from the contract price, \$1,775. At the same time some repairs were made to the lighthouse tower not included in Mr. Abbott's contract at a cost of \$372.49. The total expenditure on this work has been \$2,147.49.

Lake St. Louis light-ships.

The three light-ships have been maintained as usual during the past season, As it was desirable to scrape and paint their bottoms this winter, a contract was let to Mr. Louis Metras, of Lachine, to remove them from the water, and they are now wintering on the canal bank at Lachine.

Beauharnois.

Repairs were made to the foundations of both the range light towers under the direction of the lightkeeper at a cost of \$38.95.

St. Anicet Bar.

One hundred cords of riprap stone were placed around the pier during last winter at a cost of \$297.25.

Marine and Fisheries.

Lancaster Bar.

The foundation of the lighthouse on the pier at this station was repaired, the roof of the dwelling re-shingled and other small repairs made at a cost of \$19.75.

Point Peter.

A new clockwork machine was supplied to revolve the illuminating apparatus at a cost of \$494.90.

Salmon Point.

New sills and a new foundation were put under the barn at this station at a cost of \$35.

Oakville.

In consequence of damage done by storm to the outer end of the east pier at Oakville, Ontario, the lighthouse tower which stands upon it was moved 60 feet inwards from its former position, and now stands 80 feet from the end of the pier. The cost of removal was \$62.62.

Port Dalhousie.

The main light at this station which was built upon a cribwork block attached to the east breakwater was found to be settling in consequence of the rotting away of the timber work of the block; it was therefore decided to place it upon a new foundation, and Mr. W. H. Noble, foreman of works, was sent to carry out the work, which could be done more profitably by days' labour than under contract.

The new foundation prepared was a circular steel casing filled with concrete masonry. When preparations were made to erect the old tower on a new foundation, it also was found to be in such a bad condition that it was thought preferable to erect a new tower, which was accordingly done, the old lantern and illuminating apparatus being utilized on the new building. The total expenditure in connection with this work was \$2,157.71.

Middle Island.

The Chief Engineer was sent to this station to investigate into the dispute as to the settlement for repairs made last year. He having reported that the work was efficiently done and that the prices were reasonable, the work having been undertaken in consequence of a misunderstanding of the instructions given to the keeper, payment was made, the contract price being \$200.

Colchester Reef.

The cribwork containing stone ballast to protect the lighthouse foundation was damaged by a storm which also carried away the boat derricks. The pier was repaired and the boat derricks replaced, and some other repairs made at the station at a cost of \$309.87.

Corunna.

Reference was made in last year's report to the destruction by fire of the back range tower at this station, and of a contract having been let to replace it. This

contract has been satisfactorily completed and the old tower replaced by a new one on the same site. This is an inclosed wooden tower, square in plan, painted white, 42 feet high from the ground to the top of the lantern.

The light will be elevated 67 feet above the level of the river.

The work was done under contract by Mr. James Adair of Courtright for \$205.

The front tower, which was formerly an open frame building has been enclosed from top to bottom. Improved catoptric apparatus has been placed in both towers.

Goderich.

Repairs were made by the keeper to the shed attached to the tower at a cost of \$54.25.

Saugeen.

On the opening of navigation last spring, the fishing light on the breakwater on the north side of the mouth of Saugeen River, in the west riding of Bruce, Ontario, was changed from fixed green to fixed white, and improved by substituting a Chance's anchor light dioptric lantern of the 7th order for the small pressed lens lantern previously used.

The white light should now be visible 10 miles from all points of approach from the lake.

In other respects the station is unchanged.

Cove Island.

General repairs were made to the dwelling-house and shed attached under the keeper's directions, at a cost of \$31.75

Christian Island.

The chimney of the dwelling-house was rebuilt at a cost of \$40.

Whiskey Island.

The tower at this station was struck by lightning during the past season and the expense involved in repairing the damage was \$38.

Mississauga Strait.

A new pony pump has been supplied at a cost of \$125.

Fort William.

The foundation of the dwelling-house at this station was repaired under the directions of the late keeper, at a cost of \$50.

Kagawong.

As indicated in last year's annual report tenders were invited for the erection of a small tower to replace the mast and shed burnt down at Kagawong, but the tenders received were so high that it was considered preferable to postpone erecting a building until a foreman could be sent from the department to superintend its con-

Marine and Fisheries.

struction and put up the building by days' labour. In the meantime a temporary light from a pole is being maintained.

Lindoe Island.

General repairs were made to the dwelling at a cost of \$41.50.

Presqu'île.

The lighthouse at the extremity of Presqu'île, in Lake Ontario, is a high octagonal stone building erected in 1840. In consequence of bad stone and workmanship having been used the tower cracked badly and became unsafe. It has been repaired by surrounding it with iron bands and planking and shingling the side over the stonework so as to prevent the entry of water or frost.

The dwelling-house at this station was found to be unhealthy, and not having been occupied for some years was in bad condition. The cellar excavated was below the ordinary level of the lake and was consequently never dry. Extensive repairs to this building are in progress and will be completed after the opening of navigation next year. They include filling up the cellar to the ground level, lining the stone building with ceiling boards, raising the ceiling and increasing the height of the upper story. The expenditure to date on the repairs to the tower and dwelling has been \$1,096. It is estimated that it will take \$404 to complete the work.

QUEBEC LIGHTHOUSE DIVISION.

This division comprises all the lighthouses, and light-ships below Montreal, on the St. Lawrence and Richelieu rivers, and Lake Memphremagog; all the lighthouses, lightships, steam fog-alarms, fog-guns, iron and wooden buoys, beacons, &c., &c., below Quebec, in the River and Gulf St. Lawrence, Straits of Belle Isle, north-west coast of Newfoundland, Labrador and north side of Baie des Chaleurs, &c., &c.

This division is under the control of Mr. J. U. Gregory, agent of the department at Quebec, who also has under his superintendence, for the purpose of maintaining the efficiency of this extensive and important district, the Dominion steamer "Alert," which is engaged in carrying out the increasing demands of the different services, with such aid, as can be furnished by the steamer "La Canadienne," or by steamers engaged from time to time.

Besides performing the duties of agent of the Department of Marine and Fisheries, Mr. Gregory is also shipping master, and attends to the requirements of the British Board of Trade in connection with the distressed seamen, shipwrecks, casualties at seas, and receiver of wrecks.

His staff consists of Mr. L. A. Blanchet, accountant, and deputy shipping master; Messrs. Geo. O'Farrell and Alph. Hamel, clerks; N. FitzHenry, store-keeper and wharfinger; Mr. O'Farrell, for the past year, has been acting-inspector of lights, assisted by Mr. P. Jobin, master-carpenter, and Mr. J. Rolph, chief engineer of the steamer "Alert," for the lights below Quebec in the River St. Lawrence.

Captain Demers has inspected all lights, above Quebec; besides attending to the maintenance of the large buoy system, in this agency. The workshops are under the control of C. Vezina, master shipsmith, and P. Jobin, master carpenter.

The lights between Quebec and Montreal were supplied by arrangements similar to last year. In the spring of 1893, the supplies were placed on board market boats and were landed at the wharves nearest the light-stations. Captain Demers had the supplies under his control, and by his directions they were conveyed to the place required at the same time he visited the lighthouses for the purpose of inspection.

The gas buoys of which there are 10, were placed in position and maintained by the "Alert," and by tug boats specially employed at times when the "Alert" was not available.

There are in this division 152 lights at 115 stations, 8 light-ships, 3 of which are supplied with steam fog-whistles; 7 fog-guns, 2 explosive bomb stations, 2 fog-whistles and 8 steam fog-horns at light-stations; 10 gas buoys, 4 of which are supplied with bells, and 59 beacons.

The steamer "Alert" supplied all the lights in the lower part of the River St. Lawrence, the Gulf, Bay des Chaleurs, Anticosti, Strait of Belle-Isle, Labrador and north-west coast of Newfoundland.

IMPROVEMENT IN AIDS TO NAVIGATION.

In compliance with the desire of a large number of pilots, masters, ship owners and agents, the gas buoy heretofore maintained off the north-east extremity of White Island Reef in the River St. Lawrence below Quebec, was replaced by the light-ship previously stationed off Manicouagan Shoal, and the maintenance of a light-vessel at the latter place has been abandoned. The light-ship is moored in 8 fathoms of water, is painted red with the words "White Island Reef" in red on each topside and shows a fixed red light from each mast; the light on the foremast is elevated 24 feet, that on the main mast 27 feet above the water. Each light should be visible 10 miles from all points of approach.

A steam fog-whistle on the vessel sounds a blast of 8 seconds' duration followed by a silent interval of 8 seconds, then another blast of 8 seconds' duration, followed by a silent interval of 2 minutes and 20 seconds.

The removal of this light-ship from Manicouagan was not made without carefully weighing the consequences of the change. It was recognized that a useful aid to navigation would be abandoned, but the importance of the Manicouagan light-ship has decreased very much in consequence of the great substitution of steam-power for sailing vessels in the River St. Lawrence traffic, and the majority of the steamers keep from the north shore, while every vessel using the river will utilize the light-ship in her new position; moreover, the change in position is part of a scheme to light the channel north of Hare Island, which is much more suitable for the navigation of heavy steamships than the channel south of that island. The Chief Engineer of the Department visited the district last spring and suggested the establishment of a gas buoy on the Middle Ground, of a strong coast light and fog-alarm on Cape Salmon, which, together with the establishment of the White Island Reef light-ship above described, should make the north channel safe for navigation in the darkest and thickest weather.

The attention of masters and pilots of steamers is invited to the superior facilities for navigation which this channel affords. The only drawback to its use by sailing vessels is the want of good anchorage.

Marine and Fisheries.

Cape Salmon.

As above indicated it is proposed to erect a lighthouse and fog-alarm building on La Pointe de Roches, immediately to the eastward of Cape Salmon. A contract was awarded for the necessary buildings to Mr. Jean Warren, of Murray Bay, whose tender, \$3,700, was the lowest, and the work will be proceeded with on the opening of navigation.

In connection with the above scheme of lighting the channel north of Hare Island, the red can buoy previously maintained on the north-east extremity of the Middle Ground between St. Roch des Aulnets and Coudres Island, near the east end of the South Traverse, was on the 1st July last replaced by an iron spherical buoy painted red, with "Middle Ground" in white letters, surmounted by a lens lantern showing a bright or white gas light occulted about every 6 seconds. This light is elevated about 10 feet above the water, and should be visible 8 miles, but must not be depended on too much as it is liable to be extinguished by collision or stress of weather.

Quebec Range Lights.

A range of lights established by the Quebec Harbour Commissioners in 1891 to guide vessels to the Commissioners' Wharf, in Quebec Harbour, has been assumed, and will hereafter be maintained, by the Government.

The front light stands upon the north-east corner of the Princess Louise Basin Embankment, near the Immigration Offices. It is fixed red, elevated 43 feet above high water mark, and should be visible 8 miles from all points of approach by water.

The illuminating apparatus consists of an electric arc light shaded by a red globe, attached to an arm on a mast, which rises out of the centre of a small square tower painted brown. The height of the top of the tower above the wharf is 17 feet, and of the top of the mast, 40 feet.

The back lights are located on the Battery at the foot of Ste. Famille Street, 2,900 feet W. S. W. from the front light. They consist of two fixed red lights 16 feet apart vertically, the upper one 112, the lower one 96, feet above high water mark. They are also electric lights, shaded by red lenses. The upper one is an arc light, and the lower one an incandescent light. They should be visible 8 miles in, and over a small arc on each side of, the line of range.

The higher lamp is hung from an arm on a post 47 feet above the ground, the lower one from an arm on a post 31 feet above the ground.

Change in Beaujeu Bank Gas Buoy.

In consequence of the large pillar gas and bell buoy being no longer required on White Island Reef, it was utilized to replace the smaller spherical gas buoy at the west end of Beaujeu Bank, this latter buoy being utilized for the new position on the Middle Ground above described. The change was carried into effect on the first July last.

The new buoy on Beaujeu is painted white like the old one, with "Beaujeu Bank" in black letters, and is surmounted by a bell and by an occulting white gas light at an elevation of 14 feet above the water.

Serpent Reef.

A buoy was placed in September last to mark Serpent Reef, in the Gulf of St. Lawrence, off the coast of the county of Gaspé, being the locality where the ss. "Hurons" stranded. The buoy is a wooden can buoy 6 feet in diameter, painted black, moored in 6 fathoms water about one mile from shore, and $7\frac{1}{2}$ miles south-east by south from Fame Point lighthouse. The water 250 feet inside the buoy is only 12 feet deep, and although there is a 7-fathom channel farther in, it is crooked and not considered safe. All vessels should therefore keep outside of the buoy.

PRINCIPAL REPAIRS TO EXISTING STATIONS.

Algernon Rock.

The pier here was considerably injured by ice and required repairs to timbers and sheathing with boiler-plates. Some repairs to the tower were also required. The work was carried out by the keeper with local assistance at a cost of \$273.31.

Anticosti, Heath Point.

Buildings were reshingled and repairs to tower work was performed by two carpenters sent down from Quebec under superintendence of Mr. Pierre Jobin, foreman, at a cost of \$77.55.

Anticosti, South Point.

Repairs to dwelling and outbuildings, reshingling, covering lantern, new windows, floor painting, carried out by the two men who did the work at Heath Point. Cost, \$261.66.

Anticosti, South-west Point.

Materials and shingles for sundry repairs were sent down. Keeper did the work. Cost, \$37.25.

West Point, Anticosti.

Tower, dwelling and outbuildings and boat were repaired and painted by the two workmen above referred to, at a cost of \$226.19.

Ash and Bloody Island.

The pier at Bloody Island damaged by ice was repaired by the keeper and help at a cost of \$10.60.

Batiscan Tower.

The foundation required to be filled under with sand owing to frost causing upheaval. The tower was painted, lantern re-covered; work performed by keeper and assistance allowed. Cost, \$74.94.

Bird Rocks.

The boiler, tanks and hoisting apparatus were repaired in agency's work-shops at a cost of \$74.70.

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Cap aux Oies.

The gallery, railing and buildings required repairs and reshingling. This work was done by the keeper, who hired the necessary assistance, at a cost of \$33.40.

Cap Chatte.

New shed and repairs to buildings were necessary. The shed is required to protect operator when firing gun cotton fog-signals. The work was performed by the keeper and assistance allowed. Cost, \$80.70.

Cape Magdalen (Above Quebec).

Repairs to the back tower of the upper range consisting of covering lantern, repairs to floors, steps, foundation and painting both towers two coats was done by Mr. François Desruisseaux from Quebec, at a cost of \$108.02.

Cape Norman.

The buildings required clapboarding, replastering and shingling and considerable general repairs, including painting. The work was done by two men, sent down from Quebec under supervision of Mr. P. Jobin, master carpenter. Cost, \$518.70.

Cape Ray.

The buildings required reshingling, plastering and small repairs, which was performed by a workman sent down from Quebec, under supervision of Mr. Pierre Jobin. Cost, \$187.75.

Cape Rosier.

Considerable repairs to tower, dwellings, and outbuildings, consisting of new stairs, covering cistern, plastering, flooring, clapboarding tower and done by two workmen sent from Quebec, under supervision of Mr. Pierre Jobin. Cost, \$516.69.

Contrecoeur.

Repairs to the foundation of the large tower where necessary; offers from parties in the locality were made to do this work for \$300. Authority was obtained from the department to send up a foreman from Quebec, using local help to do necessary work. This was performed by M. P. Desruisseaux, with assistance, and cost \$32.42.

Crane Island.

A new well was required at this station on account of the unwholesome condition of the water; this was allowed with pumps and pipes to cost \$33, and repairing buildings \$40. The work was performed by local workmen under supervision of lighthouse-keeper.

Etang du Nord.

Repairs to rooms, flooring, cupboard, tank bench were made and whitewashing was done with local assistance, at a cost of \$57.90.

Father Point.

Lantern recovered, new flooring and repairs to house and painting. The work was performed by keeper with local assistance, at a cost \$126.10.

Green Island.

The buildings at this station are the oldest in the district and frequently require small repairs. During this season the cost of such repairs performed by keeper with local assistance, amounted to \$62.70.

Lower Traverse Light-ship.

A new deck was laid and repairs to hull and joiner work inside performed under supervision of Mr. P. Jobin and local assistance. Cost, \$1,288.89.

White Island Reef Light-ship.

Repairs to engine, boiler and fittings were performed by the engineer and assistant at the agency's forge. Cost, \$200.68.

Métis.

A new metal roof was put on the dwelling by the lowest tenderer Mr. J. R. Kane, roofer of Quebec, with other small repairs. Cost, \$156.07.

Orleans Range Light.

Two new masts with rigging to hoist dioptric lights were provided, the towers were levelled up and repairs to foundations required, owing to heaving of the soft soil were made by two workmen sent from Quebec. Cost, \$183.70.

Paspebiac.

The foundation of the tower required considerable repairs which were performed by the keeper and local assistants. Cost, \$58.

Pillars Lighthouse and Tower.

The dwelling-house which is old and in bad order is to be renewed. The repairs necessary to keep the station in working order, with repairs to boats allowed, were done by the keeper and local assistance at a cost of \$164.23.

Platon.

Repairs to tower and painting done by the keeper and assistance allowed. Cost \$15.

Pointe des Monts.

Repairs, clapboarding tower and general repairs to windows, floors, doors, roof, masonry and painting. Two men were sent from Quebec, who with local assistance did the work, under the supervision of Mr. Pierre Jobin, at a cost of \$187.20.

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Portneuf (below).

Repairs and painting the tower and building. The work was done by keeper with local assistance. Cost, \$72.32.

Red Island Light-ship.

Repairs to engine, boiler and connections, work done by engineer and assistance. Cost, \$117.57.

Repentigny.

Repairs to foundation of tower and roof work was performed by two men sent up from Quebec. Cost, \$91.66.

Seven Islands.

Repairs to the kitchen and outbuildings were made by keeper and assistance. Cost, \$24.

LIGHT-SHIPS.

The Lower Traverse Light-ship was hauled up, scraped, painted and repaired, and deck renewed last winter. All the other light-ships are in good order and condition; but will require the ordinary small repairs and outfitting during winter.

The Manicouagan Light-ship and steam fog-whistle service was discontinued, and the light-ship moored on White Island Reef, being the entrance of the North Channel, now being extensively used by heavy draught ocean vessels.

GAS AND OTHER BUOYS, ABOVE AND BELOW QUEBEC.

The maintaining of the efficiency of this large and important district has been performed by the steamer "Alert," when not on duty on lighthouse service, in the Gulf, &c., and by engaging tug steamer adapted for carrying buoys and gas tanks, and with proper lifting gear.

The Lark Reef checkered buoy was altered to red buoy; the White Island Reef wooden can red buoy was discontinued. The wooden can red buoy at the east end of Middle Ground was replaced by the gas buoy. The Traverse wooden can wreck buoy, indicating a former wreck, was removed, not considered necessary any longer, owing to the wreck having disappeared.

Three new large can buoys, and eight spar buoys, were built this year, at a cost of \$776.65, including cost of chains, swivels, anchors, painting, &c.

Six beacons were built and repaired, at a cost of \$141.60; for this district.

Spar Buoys.

The spar buoys, placed in position below Quebec, after all the other buoys are removed, at the end of the season, have become so valuable to vessels, leaving at such a late period, that you have authorized me to renew them, every fall.

One is also placed at Ste. Croix, and one at Pointe aux Trembles, when the gas buoys, at these stations, are removed.

The sum of \$596.65 was spent on spar buoys, from the 1st July, 1892, to the 30th June, 1893.

NOVA SCOTIA LIGHTHOUSE DIVISION.

This division, in charge of Mr. H. W. Johnston, agent of the department for the province, includes the charge of 177 light stations exhibiting 190 lights, 1 light-vessel, 16 steam fog-alarms, 1 signal bomb station, 17 hand fog-alarms, 2 fog-bells, 14 automatic whistling buoys and 10 iron bell buoys on stations, 95 iron can buoys, about 700 spar and other small buoys, 8 stationary beacons, 15 life-boat stations, 3 humane establishments and 4 signal stations. The steamer "Newfield" is also under the control of this agency.

The lighthouses and fog-alarms throughout this division have been inspected by Mr. C. A. Hutchins, superintendent of lights, and the boilers and machinery at the fog-alarm stations have been examined by Mr. Warner and Mr. Devan, engineers of the "Newfield."

NEW LIGHTS.

Candlebox Island.

As indicated in last year's report the construction of a lighthouse on Candlebox Island at the western end of Schooner Passage, Bay of Fundy, was under taken by Mr. John B. Porter, of Belleville, N.S. He satisfactorily completed his contract, and the lighthouse was put in operation on the 1st of February last.

The light is fixed red, elevated 56 feet above high-water mark, and should be visible 8 miles from all points of approach.

The illuminating apparatus is dioptric of small size.

The lighthouse, which stands near the centre of the small island, consists of a square wooden tower with dwelling attached, painted white, the tower surmounted by an iron lantern painted red. The height of the lantern from its base to the vane of the lantern is 57 feet.

Bunker Island, Yarmouth.

During the past season the lighthouse on the end of the reef off the south-west point of Bunker Island, on the east side of the entrance to Yarmouth Harbour, has been removed to a new concrete pier built immediately south of the old cribwork pier, under the supervision of Mr. W. H. Noble, the old pier having become completely rotten. The cost of this change was \$5,461.97.

The new pier consists of a steel cylinder, 36 feet in diameter, filled with concrete, and carried up 4 feet higher than the old one. The height of the light above high water mark will consequently be 31 feet instead of 27 feet as in the past, and the light will be 27 feet south of its old position.

Sand Point or Eddy Point.

A new square tower attached to the old lighthouse building, is in course of construction at this station by Mr. T. M. Crowe, Truro, N. S., under contract for the sum of \$800. The two horizontal lights to be changed to one fixed light shown from the lantern on tower. It has been considered advisable thus to improve the efficiency of the light at this important station, it being the only guide to the large number of vessels passing through the Gut of Canso. It is hoped that this new light will be ready for the opening of navigation in 1894.

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Gillis Point.

It has been decided to establish a light on Gillis Point in the Great Bras d'Or, and when established the light at the railway bridge will be discontinued, as the bridge lights will suffice to guide to the swing.

In connection with the establishment of this light delay has occurred in consequence of the necessity which arose from expropriating this land, but plans have now been prepared and tenders will be immediately invited for a combined light-house tower and dwelling.

The following repairs and improvements have been made at various stations, in addition to the usual care and painting of the building.

Meagher's Beach.

The seaward face of breakwater repaired and an additional groin built. Twenty feet of groin on southern side carried away last winter has been replaced.

Devil's Island.

A wire fence inclosing the west end light and keeper's dwelling has been erected.

Jeddore.

A wooden tank six feet square has been constructed in cellar to hold rain water.

Pope's Harbour.

New spouts fitted to dwelling, kitchen pump and clock furnished.

Wedge Island.

Leaks in roof repaired.

Country Harbour.

An addition eight feet by ten feet has been built on kitchen, lantern deck recovered, rails renewed, new sill to window, new door and posts to oil store, and plaster repaired in two rooms.

Tor Bay.

The sum of \$25 has been expended in repairs to road leading from the station to the main road.

Three Top Island.

A boat-house and slip have been erected at landing.

White Head.

An addition of ten feet has been built on kitchen, and the interior of kitchen stripped, walls rendered between studs and ceiling re-plastered.

Cranberry Island.

A new boat slip has been erected at landing and roof of whistle-house repaired.

St. Esprit.

Lantern deck recovered, south side of tower stripped and shingled, spouts renewed and chimney repaired. Buildings painted.

Isle Outrique.

Kitchen floor renewed and buildings painted.

Jerseyman's Island.

A lean-to built on side of oil store for accommodation of boat. Five outside sashes furnished. A new boat supplied and a set of new lamps. Buildings painted outside.

Point Tupper.

A wire fence has been erected around lighthouse lot, foundation wall of dwelling repaired and a wall under covered passage to lighthouse built. Eight outside sashes have been furnished to dwelling.

Canso Harbour.

Plaster repaired and leaks in windows stopped.

Sydney Harbour.

An umbrella fitted inside lantern to protect lamps from rain. Lighthouse painted outside.

Low Point.

Kitchen walls and ceiling plastered and ceiling in porch repaired.

Point Aconi.

An addition 10' x 14' has been built on north side of tower, the whole building re-shingled and buildings painted.

Piper's Cove.

Roof of oil store re-shingled.

Marjorie's Isle.

A shelter house has been erected for the accommodation of keeper.

Jerome Point.

A porch 6' x 4½' has been built at the front entrance, and boat repaired. Building painted outside.

Bird Island.

Oil store re-shingled, and new sills fitted to derrick at landing. Building painted outside.

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Ingonish.

A new boat furnished.

Cape North.

Roof re-shingled, and broken plaster in two rooms repaired.

Cape St. Lawrence.

Buildings painted and slip repaired.

Port Hood.

And outhouse built, new fence erected and chimney and vane repaired.

Pomquet Island.

Kitchen secured to main building, foundation walls repaired and new frames fitted to cellar windows. Buildings painted outside.

Cheticamp.

New spindle and wheel supplied to revolving clock, new chimney built in kitchen and foundation wall repaired, buildings painted outside.

Eastern Harbour.

Both lots inclosed with picket fences.

Pictou Island.

A new lantern is to be furnished, and other repairs effected next year.

Pictou.

Shed re-shingled, chimney in kitchen repaired and new steps fitted to entrance door of dwelling.

Merigomische.

Kitchen pump furnished and buildings painted outside.

Mullin's Point.

A lamp in the window of the dwelling-house of the late keeper at this station had been utilized as a back range light, but last year a change in the keepership was made and the owner of the dwelling-house refused to allow the old arrangement to continue: it consequently became necessary to provide a new back range tower, and in connection with that it was deemed advisable to provide a dwelling-house for the new light-keeper.

Tenders have been received for the necessary building, and a contract will immediately be awarded so that the new light may be in operation early next season. In the interval a temporary light from a pole has been maintained.

Chebucto Head.

New spouts fitted and buildings painted outside.

Croucher's Island.

A new line wire picket fence erected, boat repaired, chimney rebuilt from roof, and foundation wall pointed.

Hobson's Nose.

New boat supplied.

West Ironbound.

Leaks over windows in tower stopped and plaster in kitchen repaired.

Port Medway.

Outside shutters and sheathing over foundation wall repaired. Roof of oil store re-shingled.

Coffin's Island.

Foundation wall under lighthouse repaired.

Fort Point.

Shed attached to tower removed to corner of lot to be used as an oil store.

Gull Rock.

New boat supplied and six new copper smoke funnels fitted to lamp frame.

Carter's Island.

A new dory supplied.

Shelburne (Cape Roseway).

Fifty dollars expended on repairs to road leading from landing, and tramway repaired.

Sand Point (Shelburne Harbour).

The cribwork pier on which lighthouse stands is undergoing repairs and the lighthouse being painted outside.

Cape Negro.

Roof of dwelling re-shingled and kitchen doors repaired and new sills fitted.

Baccaro.

Six new copper smoke funnels fitted to lamp frame, lantern dock recovered and minor repairs made to building and plaster throughout the building. Drain wall rebuilt. Buildings painted outside.

Barrington Light Ship.

New lantern supplied. Moorings lifted and replaced and new anchor furnished.

Bon Portage.

New lamp frame, lamps and reflectors supplied and a new boat furnished.

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Seal Island.

Boat slip at landing repaired.

Pubnico.

Roof of kitchen and dwelling on north side resingled and buildings painted.

Fish Island.

Leaks in roof repaired and a new floor laid in porch and store at landing. Buildings painted outside.

Candlebox.

Boat slip extended one hundred feet. Well dug to supply fresh water. Two outside storm doors fitted to dwelling. A new dory furnished.

Cape Fourchu.

The keeper's dwelling which had been slightly damaged by lightning, has been repaired under the supervision of Mr. Amos McLellan.

Yarmouth Harbour.

A new concrete pier has been built at Bunker Island under the supervision of Mr. W. H. Noble, to replace the decayed wooden pier on which the lighthouse tower is built, and the tower is now being moved to the new pier.

Parrsboro'.

A new stone foundation wall has been built under tower, to replace the decayed wooden cribwork foundation, a porch built on entrance side of tower and roof resingled. New sills put under foundation and lantern deck and sill renewed.

BUOY SERVICE.

Notwithstanding the severity of the weather during the past year, but little damage has been done to the large number of buoys now doing service on this exposed coast. This is largely attributable to the system of changing every six months as nearly as possible, and care exercised in examining moorings and placing in position.

The granite weights used instead of anchors as formerly, has also proved to be a better security against fouling and consequent dragging or parting of cable.

The following is a list of casualties :—

Brazil Rock Bell-buoy.

This buoy broke away from its moorings in May last, and was towed into Shelburne by the schooner "Fanny A. Spurling," with loss of moorings. Salvage \$281.25. It was subsequently brought to Halifax by the "Lansdowne."

Jig Rock Can-buoy.

Drifted from its position and towed into Sand Point, Shelburne. Brought home by "Newfield'."

Orpheus.

This buoy broke away from its moorings in last winter's gales, and was towed into Petite de Grat by fishermen with loss of moorings.

ADDITIONAL BUOYS AND CHANGES.

Egg Island.

An automatic whistling buoy, painted red, was moored on the 1st June last in 37 fathoms water, 5 miles S. Mag: from Egg Island Light, for the purpose of guarding vessels from the dangerous shoals in that vicinity, and as an additional leading or fairway-buoy to vessels seeking Halifax harbour. The usefulness of this buoy has since been most favourably noticed by captains of steamers and others.

Inner Automatic.

In consequence of the discovery of a 32 feet patch near the western extremity of Portuguese shoal, Halifax harbour, this buoy was moved about 3 cables N. W. by N. $\frac{1}{2}$ N. from its former position to a point in 20 fathoms water 3 cables S. W. $\frac{1}{2}$ W. from the 32 feet patch.

Thrum Cap.

The iron can buoy formerly marking the turning point at extremity of Thrum Cap Shoals, has been replaced by a bell buoy of the Trinity House pattern, surmounted by a spherical cage. This change has proved to be a great improvement.

Neverfail.

An iron spar buoy, painted red and black horizontal bands has been moored $1\frac{1}{2}$ cables S. from the $4\frac{1}{2}$ fathom line of the shoal.

Mars Rock.

The iron can buoy marking this shoal has been fitted with a staff carrying a flag or burgee made of sheet iron, to distinguish it more readily in thick or hazy weather from other similar buoys in the neighbourhood and to render it more conspicuous.

Tancook Islands.

A can buoy painted green has been moored alongside the sunken schooner "Emma Brown" about $\frac{1}{2}$ mile S.E. by S. from South Head, Great Tancook Island, near Lunenburg.

St. Ann's.

Two spar-buoys have been placed to mark the channel at entrance to St. Ann's harbour, Victoria County, Cape Breton.

SABLE ISLAND.

All the stations throughout the island were inspected by the superintendent of lights on the 15th and 16th July last and found to be in excellent order. During the past year a new building has been erected at the main station by the island staff under

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the superintendent, for the better accommodation of the Beebe lifeboat and wagon and the rocket apparatus, the materials used being chiefly from the lumber saved from the wrecked brigantine "Kaluna."

BUOYS.

Spare buoys.

Two whistling buoys have been made by the Truro Foundry and Machine Company at a cost of \$820 each, and supplied to the Halifax agency to be kept in stock to replace buoys adrift or requiring repairs.

St. John's Ledge.

A small bell buoy of United States pattern, which was established in 1891 off St. John Ledge in the Bay of Fundy, has been replaced by a larger bell buoy of the Trinity House pattern. The buoy is moored in 22 fathoms water, $1\frac{1}{4}$ miles S.W. by W. $1\frac{1}{4}$ W. from the middle of the ledge, and is painted red with "J. Ledge" in white letters on it.

On the 25th December, 1893, two automatic whistling buoys were established near Yarmouth, in the Bay of Fundy, to facilitate approach to the harbour. The more northerly buoy is moored in 22 fathoms water, 5 miles N.W. by W. from cape Fourchu light. It is a first-class Courtenay buoy, painted red, and surmounted by a 10 inch whistle operated by the motion of the buoy on the waves. The more southerly buoy known as the Yarmouth fairway whistling buoy is moored in 34 fathoms, 10 miles S.W. by W. $\frac{1}{2}$ W. from cape Fourchu light. It is a similar buoy, but is painted in black and red stripes. It is proposed next spring to change the colour of the Lurcher shoal whistling buoy from red to black and red bands with the letter **L** in white, so as to distinguish it from the cape Fourchu buoy.

NEW BRUNSWICK LIGHTHOUSE DIVISION.

There are in connection with this branch of the marine service, on the coast of New Brunswick, 117 lighthouses and 12 fog-alarms, attended by 87 lightkeepers and 12 engineers in charge of both lighthouses and fog-alarms, having with them 10 assistants, making in all 109 persons at those different stations.

REPAIRS AT EXISTING STATIONS.

Beacon lights, St. John Harbour.

Sundry repairs were made to the buildings at a cost of \$45.22, and the boat was also repaired.

Bliss Island.

Repairs were made to the dwelling house and the roof re-shingled. New sills were put under the barn. Cost of repairs \$115.89.

Big Duck Island, Fog-alarm.

The derrick was repaired and a coal shed and water tank built under direction of Mr. David Ross, carpenter, of Lansdowne, at a cost of \$472.40. The boiler was repaired and new tubes put in wherever required.

Cape Enragé.

The alarm was sounding from the 25th April to the 10th May, during which time a new smokestack was being erected. Fifty tons of coal were delivered at this station above high water mark, by Messrs. Townshend & Co., of Parrsboro', at a cost of \$275, and 10 cords of wood was supplied by Daniel Lingley at a cost of \$30.

The repairs to the slate roof and other mason work was performed by Frank Meliday, at a cost of \$97.73, which will appear in the account for the fiscal year 1893-94.

Cassies Point.

Sundry repairs were made at a cost of \$106.10.

Cape Spencer.

The roof of the dwelling house and tower were shingled during the year and a room lathed and plastered.

That part of the road leading from the last house on the public road to the lighthouse lot, was repaired at a cost of \$72.75. An annual allowance of \$10 will probably keep this road in order. The sum of \$25 was also expended upon the road from the lighthouse to the main road. This property is mostly owned by the department. New lamps and other repairs were made to the lantern by Mr. G. Hevenor, at a cost of \$59.95. The lighthouse tower and dwelling were painted by the keeper with the assistance of one man.

Musquash.

New lamps were provided and repairs to old ones made at a cost of \$20.52.

Escuminac.

A flat bottom boat was supplied to the station, made by Mr. William Tait at a cost of \$36. Thirty-one tons of coal was delivered by Noonan & Davis at a cost of \$172.64. Ten cords of wood were supplied by Mr. Nash at a cost of \$26.

Lower Fox Island Light.

Repairs were made to the tower at a cost of \$52.30.

Fort Folly.

Thirty-one dollars and twenty-five cents were expended for assistance in painting at this station.

Grand Manan Fog-alarm.

One thousand one hundred and ninety feet of new tubing were purchased from Thomas Robertson & Company, of Montreal, at 10½ cents per foot, and were inserted by a boiler-maker sent from St. John.

An abutment of 60 feet long, 16 feet wide on top, and 15 feet 6 inches high in the middle, was built during the past season to protect the fog-alarm building from the debris falling from the cliff. This work was under the charge of Mr. David

Marine and Fisheries.

Ross, carpenter of the "Lansdowne," and its accounts will appear in the accounts for the present year.

One hundred and twenty-five tons of coal were landed at the station at a cost of \$687.50.

Hendry's Point.

As indicated in last year's report, it was found necessary to replace the lighthouse here by a new building. The contract was satisfactorily completed in July last by Mr. John A. Jones.

Head Harbour.

Lumber to the amount of \$47.55 was supplied to the station for repairing the platforms around the lighthouse. The keeper was directed to have the repairs made. The beams and floor covering of the reservoir in the fog-alarm had to be renewed as they were rotten.

Hay Island.

A new boat was built at a cost of \$25.

Indian Point, Shippegan Range.

New lantern and lamps were supplied to this station at a cost of \$37.91.

Letete Fog-alarm.

Repairs were made to the boiler at a cost of \$33, and a new smokestack was supplied at a cost of \$48.65.

Miramichi Light-ship.

In the spring of 1893, the bottom of the light-ship "Jenny" was cleaned, caulked where needed and copper painted, the rigging tarred down and repaired, the masts and bulwarks, all woodwork inside of the bulwarks, the top outside bulwarks and rail, were painted, the top sides caulked and repaired and the iron-work repaired. This work was done under contract by Mr. John Ferguson, the lowest bidder, at a cost of \$150.

Machias Seal Island.

New tubes were put in the boiler of the fog-alarm at a cost of \$55.25.

Midjic Bluff.

The sum of \$15 was paid Arthur Henderson for cutting down and removing trees that had obstructed the light.

Miscou Island.

A new boat was supplied for landing coal at a cost of \$60.

Mr. Robert Rivers delivered wood at a cost of \$70.

The illuminating apparatus at this station, which heretofore showed a fixed red light, has been replaced by a revolving apparatus, and on and after the opening of navigation in the spring of 1894, the light will show four bright flashes with inter-

vals of 15 seconds between their points of greatest brilliancy, followed by an interval of 30 seconds, during the greater part of which the light will be eclipsed, the light thus completing a revolution in $1\frac{1}{2}$ minutes. The apparatus is catoptric and the light should be visible in clear weather for a distance of 14 miles.

Musquash Island.

As indicated in last year's report, it was found necessary to replace the lighthouse at this station by a new building. The contract was satisfactorily completed by Mr. John A. Jones in July last.

Mark's Point.

The new stone piers and beams authorized last year were put under the building at a cost of \$25, and have made it safe and firm.

No Man's Friend.

The beacon tower at this place is much decayed, but it is proposed to repair it, it being the intention of the department to erect a lighthouse at Gagetown, on the opposite side of the river, to replace this light.

Neguac.

In previous years a range light on a mast which in line with the main light at the Gully indicated the best channel over the bar was maintained, but the channel became so tortuous that it was decided to discontinue this second light. Last spring, however, it was found that the two lights in range could again be utilized, and accordingly the small lantern on a mast was relighted and maintained throughout the season of navigation.

Partridge Island.

Repairs were made to the boiler and machinery of the fog-whistle with the assistance of Mr. John Smith, at a cost of \$91.88. A new set of fire bars, purchased from the Allan Foundry and Machine Works was put into the boiler at a cost of \$63.20.

Pokemouche.

Small repairs were made at this station at a cost of \$20.88.

Point Lepreaux.

A new flag staff has been erected, and the derrick repaired at a cost of \$38.

Repairs were made to the boiler of the fog alarm at a cost of \$30.

One hundred and twenty-nine tons of coal were delivered at the station by Messrs. Townshend & Co., at a cost of \$741.75.

St. Andrew's outer Light.

A new boat was supplied at a cost of \$21, and \$28 were spent for assistance in painting.

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Pokesudie.

The illuminating apparatus at this station has been changed, the lamp and reflectors having been removed and replaced by a dioptric lens of small size, purchased from Messrs. Chance Brothers, at a cost of \$73.

Quaco.

New tubes were placed in the boiler of the fog-alarm and the boiler repaired, at a cost of \$100.53.

Richibucto.

New boat supplied at a cost of \$45.67.

Richibucto Beacon.

Repairs made at this station by Mr. F. S. Peters, at a cost of \$99.

South Tracadie

New boat supplied at a cost of \$28.

Swallowtail.

A new boat was supplied at a cost of \$25, and an assortment of lumber to the amount of \$35.50 was also supplied. The old bridge between the dwelling and light was rebuilt. The steps up the high cliff from the lighthouse to the main landing being examined were found in a rotten and dangerous condition; the old ones are being removed and new steps are being laid in their place; Mr. Ross assisted the keeper in doing the work.

Shediac Island.

One of the beacons was destroyed by lightning last year and a temporary mast light was erected at a cost of \$33.78.

South-west Head, Grand Manan.

Fifteen dollars were spent in hiring a man to assist the keeper in painting the building. Lumber was supplied and the keeper made requisite repairs to the station.

North Tracadie range lights.

In consequence of the wearing away of the sand beach it was found necessary to remove the range lights at North Tracadie Gully and the front light was accordingly moved last winter to a position near the former position of the main tower, and the main light moved to a point 600 feet further back. Upon the opening of navigation it was found that the point continued wearing away and that the lights could not safely be maintained on the north side of the gully; the towers were consequently removed to new sites on the south side. The back range light tower now stands well out on the point on the south side of the gully; it is a square, wooden building, painted white, and is 33 feet high from its base to the vane on the lantern. The light is fixed white, catoptric, elevated 30 feet above high water mark, and should be visible 10 miles from all points of approach.

The front range light mast is on the beach 450 feet S.E. $\frac{1}{4}$ E. from the main tower. The fixed white catoptric light is shown from a lantern hoisted on a mast, having a shed at its base, the whole painted red. Height from ground to top of mast 23 feet. The light is 23 feet above high water mark, and should be visible 8 miles in and over a small arc on each side of the line of range.

The two lights in range N.W. $\frac{1}{4}$ W. lead over the bar outside the gully, from the outside buoy to a point opposite the second red buoy, whence the course is N.W. by N., opening the main tower to the northward until inside the harbour.

The main light is useful as a coast light, but nothing larger than fishing boats should attempt to enter the gully at night, and no stranger must attempt the entrance without a pilot. The front light is liable to be moved to suit changes in the channel over the bar.

Bridges Point.

The Chief Engineer of the department inspected this light last July and reports that the tower has been badly placed and is not sufficiently high. The necessary steps to remedy these defects are being taken.

Oromocto.

The new site necessary for this light has been surveyed and arrangements made for its purchase, and plans have been prepared for the new tower required.

Cape Tormentine.

A new building has been erected at Cape Tormentine to accommodate the ice boats for the mail service between the Capes, and also to accommodate the life-boat established at this point. The building is located immediately north of the railway track at Cape Tormentine wharf, and close to high water mark, so as to facilitate the launching of the boats.

The necessary building was erected from plans prepared in the department under contract by Messrs. Rhodes, Curry & Co., the lowest tenderers, their price being \$1,890.

BUOYS AND BEACONS.

There are 852 buoys under the management of this agency, 57 coast buoys and 795 harbour and channel buoys.

The department purchased chain, links and shackles to the amount of \$1,411.59 from Messrs. Timothy Parks & Son.

Three new bell buoys were purchased from Mr. Geo. Matheson at a cost of \$2,805.

Bell buoy off Partridge Island.

This buoy was repaired in the spring and replaced by the steamer "Lansdowne," and to all appearances is in good order.

Black Rock Automatic Buoy.

This buoy was lifted in August last, the moorings overhauled and another moored in its place. The work was done by the steamer "Lansdowne."

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Blond Rock Automatic Buoy.

The "Lansdowne" placed a new buoy and moorings at this place on the 17th March, and brought the buoy that had been there during the winter to St. John.

In lifting the buoy on board the steamer the chain parted, and about 30 fathoms was lost.

The only way to account for buoys moored at this place breaking adrift so often is that the chain wears considerably and catches under the rocks, and in heavy weather the surging of the buoy to and fro breaks the chain.

Chebogue Ledge Buoy.

This buoy broke from its moorings, and was recovered; the sum of \$32 was paid to Eben Scott for salvage and repairs.

Lower end of Grand Lake and Jemseg Buoys.

Mr. Herbert Currie is contractor. The buoying and bushing of this district by the contractor has not been satisfactorily carried out. The department had to supply and place buoys this season which will be charged against that service.

North-west Ledge Buoy.

This buoy broke from its moorings and was picked up on the 24th February 1893, about half a mile above low ledge, and was towed into Westport. The amount paid to SS. "Westport" and crew for salvage was \$112.

Old Man Buoy.

An iron can buoy was placed on this ledge in place of a spar buoy. The buoy was purchased from Eben Scott for \$50.00.

Quaco Buoys.

The Quaco Ledge bell buoy was picked up by the "Lansdowne" about 6 miles N. N.-W from Isle-Haute at anchor, the buoy having been carried there by the ice. The buoy was damaged by some vessel. The bell buoy moored off the light-house reef has not been recovered.

West Isles Buoys.

Mr. D. L. Martin is contractor; amount of contract is \$209 per annum.

Three extra spar buoys were placed in this district at a cost of \$45; and a new spindle was erected at a cost of \$40 which the contractor has agreed to keep in repair for \$12.50 per annum. The contract expires in April, 1894.

STEAMER "LANSDOWNE."

Captain Dakin's services were dispensed with by the department, and the first mate, Mr. George W. J. Bissett was placed in command. Mr. J. F. Wiffin was appointed first mate; and Mr. John L. Moury second mate.

The following repairs were made to the steamer "Lansdowne" by W. H. Knight, ship carpenter :

On starboard side, 2 planks on topsides, and covering board—extent—35 feet.
On larboard side, 4 planks and one piece of covering board.
After beam, top gallant, forecastle and covering board.

PRINCE EDWARD ISLAND DIVISION.

This division is under the charge of Mr. Artemas Lord, agent of the department at Charlottetown.

In it there are 52 lights at 34 stations and 1 steam fog-horn, under the charge of 40 keepers. There are two automatic whistling buoys and one bell-buoy in this agency. The majority of the lights are situated on headlands and serve the general purposes of navigation, the remainder being harbour lights intended particularly for the benefit of fishermen. Thirty-five harbours in this province are buoyed by the department under contract ; the buoys being under the general supervision of the agent.

The lights were as usual inspected during the summer season by the agent in the Government schooner "Prince Edward" which also delivered the lighthouse supplies. The agent reports a continuous and increasing endeavour on the part of the light-keepers to keep up the required efficiency.

REPAIRS AND IMPROVEMENTS TO LIGHT STATIONS.

The following is a statement of the more important repairs and improvements made at the several stations during the past year. Some small repairs and the ordinary painting and maintenance of the stations are not included in this statement.

Tignish Run.

The canvas lantern deck renewed by Mr. Milton Walsh. Two new panes of plate glass were provided and corners of tower repaired.

Sandy Island, Cascumpec.

A new piece of brushwork protection was built by Mr. Montgomery during the past winter under contract, for the sum of \$140, and is withstanding the sea satisfactorily.

Alberton.

The inner range light has been moved about 30 feet south, to range clear of a sand spit that was found to be making out northwards from the south bar. The beacon attached to the outer range mast has been renewed and made three feet larger on each end and side and extended up five feet beyond the top of the mast. This was done so that the beacon might show as a day mark above some houses situated between the two range lights. The cost of these changes was \$32.23.

Fish Island, Malpeque.

A new boat house and launching ways were built by the crew of the supply steamer "Prince Edward," under the immediate supervision of Mr. Lord, and a new boat was provided.

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Darnley Range.

New lantern and illuminating apparatus made by Mr. Walsh in the agency store at Charlottetown, were supplied to this station.

Grand Tracadie.

The inner range tower at this station having become unsafe through dry rot, a contract for a new tower was awarded to Mr. James Handrahan, at a cost of \$220.

St. Peter's Harbour.

The back range light which had got out of plumb in consequence of the sinking of the end of the breakwater on which it stands, has been levelled under contract with Mr. John Gennett, at a cost of \$15.

Wood Island.

The fence at this station has been renewed, materials being provided by the department at a cost of \$37.66, and most of the work being done by the light-keeper.

Cape Bear.

An arrangement was made to sink a well at this station, and a hole 60 feet deep has been bored, but no water found. This work was done without expense to the department as the contractor undertook it on condition of being successful before receiving any remuneration.

Panmuir Island.

The fence and cottage roof have been repaired.

Souris.

During a south-east gale on the 21st August last, the mast and shed on the end of the breakwater were carried away but were replaced at once. The force of the storm is indicated by the fact that about 150 feet of the middle section of the breakwater was also broken up.

St. Peter's Island.

An 8-inch pressed glass lens, fitted with Hincks duplex burner lamp was established in this station as an auxiliary to the anchor light lens heretofore in use, and which was not found sufficiently powerful. This was fitted up from agency stores by Mr. Walsh.

Cove Head.

The arrangement of the range lights at the entrance to this harbour has been changed. The front light is now close to the edge of the sand beach at the entrance to the harbour. It is elevated 18 feet above high water mark, and is a fixed white light, shown from a lantern hoisted on a mast 17 feet high, and visible over three miles from all points of approach.

The back light is located 225 feet S.W. from the front one. It is also fixed white, elevated 25 feet above high water mark, and is visible three miles from all points of approach.

The lantern is hoisted on a mast 27 feet high. The position of the light is liable to be moved to suit the changes in the channel, and only 3 feet can be depended on at low water on the bar.

Buoys.

North Point.

It has been determined to establish an automatic whistling buoy on the end of the reef off North Point, Prince Edward Island. The contract for the construction of this buoy, and also for the construction of a spare automatic whistling buoy, to be kept in stock as a spare buoy, to replace the whistling buoy off Rifle Reef and Tryon Shoal or North Point, as required, has been awarded to the Truro Machine and Foundry Company, who agree to deliver the two buoys on the opening of navigation next year at Pictou, at a cost of \$820 apiece.

BRITISH COLUMBIA LIGHTHOUSE DIVISION.

This division comprises all Canadian waters on the Pacific coast, and is under the charge of Capt. James Gaudin, agent of the department at Victoria.

There are in this province thirteen light stations, five of which are steam fog-alarms, and at three others, bells rung by machinery. There are also four lighted buoys, at two stations. The above are in charge of fifteen keepers, some of whom supply assistants out of the salaries allowed.

NEW FOG-ALARMS.

Active Pass.

The establishment of a steam fog-alarm at this station has been carried out on the lines indicated in last year's report. The necessary building and tank, and tank-house for the collection of rain-water, were erected by contract by Messrs. Crowe & Wilson, of Vancouver, at a cost of \$2,080.

The fog-alarm was put in operation on the 15th October last, and consists of blasts of 6 seconds duration from a horn, with intervals of 24 seconds between the blasts. The fog-bell previously maintained at the station has been discontinued.

The fog-alarm building is a square wooden building, painted white, with a brown roof, and stands within 70 feet of the extremity of Georgina Point, Active Pass, north-east of the lighthouse.

The horns face north and are elevated about 20 feet above high water mark. The water tank-house, also of wood, painted white, stands behind the fog-alarm building. The machinery is in duplicate, so that in the event of horn or boiler becoming inoperative the other may be used.

The total expenditure in connection with the establishment of this fog-alarm station has been \$5,089.75.

Entrance Island.

Steps have been taken to establish a steam fog-alarm at this station.

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Plans and specifications have been prepared and a contract awarded to the lowest tenderers, Messrs. Baynes & Horie, for the erection of the necessary buildings, and also for the erection of a large water tank with a shed to cover it. The contract price is \$2,075, and the work will be proceeded with early in the spring. Boilers and fog-alarm machinery in duplicate have been forwarded from Messrs. Carrière, Laine & Company of Lévis, Quebec, the makers, and are now on the island ready to be placed in the building when erected.

REPAIRS AT EXISTING STATIONS.

Race Rock.

The keeper has cleared away a lot of loose stones from the approaches to the landing place.

Cape Beale.

A new clock work machine made by E. Chanteloup, Montreal, has been supplied and set up by Mr. G. F. Grant, engineer of the "Quadra" and the old clock work has been taken into store in Ottawa for repairs. The cost of the new machine was \$662.50.

Considerable repairs have been made to some of the out-buildings, the store-room has been re-floored, re-shingled and the broken windows renewed by some workmen, and the crew of the "Quadra."

The trail to Bamfield Creek has been cleared in the usual way for the year. The tramway has been overhauled, and such temporary repairs effected as to insure its stability for another year.

Carmanah.

A watch-room has been built and a fence erected around the buildings, which has greatly improved the appearance of the station from seaward.

Beren's Island.

The tower and dwelling have had the weather boarding removed and the walls shingled, and storm windows have been put in on the most exposed sides.

During last winter's gales the boat landing was torn away and the boat broken. The stage has been renewed and a new boat supplied.

East Point, Saturna Island.

The boat-ways, which had been completely destroyed by the "teredo" were replaced by the keeper with a little assistance. A new pump and sink have also been supplied.

Sand Heads.

A new boat has been supplied to replace one stolen from the keeper.

Point Atkinson.

A new roof has been put on the kitchen.

Brocton Point.

The keeper has erected a small house for himself at the back of the tower without expense to the department.

Nanaimo Harbour Lights.

A boathouse has been built for the use of the keeper of the buoy lights in Nanaimo harbour, which also serves as a store-room for oil, etc. Since its erection the boathouse was upset by a gale and has been re-erected.

BUOYS AND BEACONS.

Buoy on Alford Reef.

The establishment of a large spar buoy on Alford reef in the approach to Metlah Catlah has been authorized, and a buoy will be placed on the next trip north of the "Quadra."

Fraser River buoys.

Owing to the high stage of the water on the Fraser River and the swiftness of the current, these buoys were dragged with the moorings into the Gulf of Georgia, and a considerable expense incurred in the salving. They have all been picked up and re-established in good order. This work is carried on by the snag-boat "Sampson," which proves to be well adapted for this service.

Sturgeon Bank beacons.

The north and south pile beacons on Sturgeon Bank, off the mouth of the Fraser River, were carried away last spring, but were replaced at a cost of \$136.37.

Grassy Point beacon.

The single pile beacon off Grassy Point, in Baynes Sound, has been carried away, and has been temporarily replaced by a buoy. It is proposed to renew it at the first opportunity.

Kelp Reef beacon.

In accordance with the proposal described in previous reports a stone masonry beacon has been built on Kelp Reef, Haro Strait. This work was done under the direct supervision of the agent, and principally by the crew of the Dominion steamer "Quadra." The total expenditure in connection with it was \$673.92.

The beacon stands upon that part of the reef which uncovers at low water. The masonry is in the form of the frustum of a cone, 16 feet in diameter at the base, 9 feet in diameter at the top and 20 feet high. The staff and ball rise 12 feet above the stonework and are painted black. The stonework is 10 feet, and the top of the ball 22 feet above high water mark.

The spar buoy heretofore marking the reef became unnecessary in consequence of the establishment of this beacen, and has been removed.

Six-foot buoys.

As indicated in last year's report, two new steel can-buoys 6 feet in diameter, surmounted by masts and cages, were made by the British Columbia Iron Works,

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the contract price being \$415 for each buoy. One of these buoys has been used to replace the conical buoy heretofore marking Gabriola Reef.

Five-foot buoys.

Six steel can-buoys, 5 feet in diameter, were also made for this agency, by Mr. W. G. Matheson, of New Glasgow, N.S., his price being \$167.75 for each buoy delivered in Vancouver, this price being much lower than any local tender. Three of these buoys have been utilized to replace the solid cedar can-buoys at the following places, viz.: Gossip Reef, at the Strait of Georgia entrance to Active Pass; Lighthouse island reef, entrance to Nanaimo harbour; and Horsewell reef, in Departure Bay.

Brotchy Ledge beacon.

The masonry beacon erected on Brotchy Ledge has not yet been undertaken, as the ledge is still marked by the wreck of the steamer "San Pedro."

American lights.

The attention of the American Government was some two or three years ago directed to the necessity for lights and fog-alarms on Turn Point and Patos Island, in the Canal de Haro, and in November last, a stake light and a Daboll trumpet fog-alarm were put in operation at each of these stations. These two aids to navigation will greatly improve the route between Victoria and Vancouver.

BUOYS AND BEACONS.

There are about 300 harbours, bays and sections of rivers buoyed in the Dominion of Canada. In most cases contracts have been entered into to maintain the buoy service for three years. In some instances the buoys are placed by the harbour masters, who furnish accounts to the department for the work done and material supplied.

The expenditure in connection with the buoy service for the year ended 30th June, 1893, was as follows:—

For the province of Quebec, including port of Montreal....	\$20,783 87
Above Montreal, including Ontario.. .. .	4,542 45
New Brunswick.....	12,627 53
Nova Scotia.....	13,428 43
Prince Edward Island	2,873 36
British Columbia.....	4,683 40
	\$58,939 04

This includes the expenditure incurred in the construction of new automatic buoys and maintaining all the buoys of this character.

OILS FOR THE USE OF LIGHTHOUSES.

The oil for lighthouse purposes has been purchased from the Imperial Oil Company of Petrolia, by contract, which was entered into on the 11th March last for a

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period of three years. Tenders were invited by public notice and the lowest tender was accepted.

The quantity of oil supplied to the lights above Montreal, by the Imperial Oil Company during the year 1893, was 23,130 gallons imperial measure, costing \$3,819.83; to the lights in the Quebec district, 26,080 gallons, costing \$4,641.42; to the Nova Scotia district, 53,564 gallons, costing \$11,804.32; to the New Brunswick district, 11,580 gallons, at a cost of \$2,274.34; to the Prince Edward Island district, 4,992 gallons, at a cost of \$1,148.10; making the total quantity received from the Imperial Oil Company 119,346 gallons, and the total cost \$23,688.10. In addition to this the department purchased from the Standard Oil Company of New York, 2,700 gallons American oil for the New Brunswick district, at a cost of \$459; 8,990 gallons for the Nova Scotia district, at a cost of \$1,528.30; and 1,450 gallons for the district above Montreal, at a cost of \$246.50; for the British Columbia district, 5,750 gallons, at a cost of \$1,092.50.

The total quantity of American oil purchased was 18,890 gallons, wine measure, costing \$3,326.30.

The list of prices according to contract is as follows :—

Delivered at.	Per gallon in Barrels.	Per gallon in Cases.
	cts.	cts.
Sarnia	14½	19
Hamilton	15¾	20½
Kingston	16½	21
Montreal	16½	21½
Quebec	17	21¾
St. John, N. B.	17½	22
Pictou, N. S.	18	23
Halifax	17½	22
Charlottetown, P. E. I.	18	23

DOMINION SETAMERS.

"NEWFIELD."

The steamer "Newfield" was stranded about the middle of August, 1892, while off North Canso light. The officers of the department at Halifax were instructed to proceed with necessary appliances, &c., to North Canso, and to use all the means that prudent owners would do to save the "Newfield." The "Newfield" was drawn off the rocky bottom by the government steamers "Stanley" and "La Canadiene," was taken to Port Hawkesbury and placed upon the marine slip. The vessel was found to be seriously injured. Tenders were invited by public notice for repairs to the "Newfield." These repairs included what was necessary to make the steamer staunch and seaworthy as well as repairing the damage sustained by stranding. The tender of Mr. Samuel M. Brookfield for \$16,500 was the lowest received and was accepted. The "Newfield" was taken to Halifax by the contractor, and the repairs were made according to contract. The amount paid in connection with floating the vessel at North Canso and the use of the marine slip at Hawkesbury was \$4,264.91, added

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to \$16,500 makes a total of \$20,774.91. The "Newfield" was put in commission under the command of Captain Aitkens on the 24th April, 1893. The vessel, however, made two trips previous to this date, one on the 16th March in search of the ss. "Sarnia" and another to place the Brazil Rock bell-buoy, on the 3rd April. From the date of going into commission the "Newfield" was employed in placing the eastern coast buoys, supplying the lighthouse, including Sable Island, St. Paul's Island and Cape Race, and in changing coast and harbour buoys.

"THE LANSDOWNE."

The ss. "Lansdowne" was employed from the 1st July, 1892, to the 30th June, 1893, in lighthouse and buoy service in the provinces of New Brunswick and Nova Scotia. On September 23rd, 1892, the "Lansdowne" arrived at Halifax and took on board the supplies to be delivered at certain stations in Nova Scotia. During the fall this vessel was employed in delivering coal to the fog-alarms and attending the coast buoys, some of which were painted and replaced. In the winter months the "Lansdowne" was engaged in the same work, and visited Sable Island with supplies for the stations. The steamer returned to the New Brunswick agency in the latter part of March, 1893, visited Quaco in search of the bell-buoy, which was found and taken to St. John. On the 13th April, the "Lansdowne" was placed upon the Gridiron in St. John for repairs and remained until the 26th May.

Mr. W. L. Waring reported on the 29th March, 1893, that repairs were necessary to the hull, engines, boiler, etc., of the "Lansdowne."

The necessary repairs were made to the hull, etc., by Mr. James Elliott. Planks were replaced on the starboard and larboard sides; the keelson, gangway and stanchions were renewed. Chain plates on starboard and port side were shifted.

Graving pieces were put around deck and stocks of both anchors shifted, also head rail and hoisting gear and the vessel was caulked from keel to gunwale, also the deck.

Repairs were also made to the engine and boiler by Messrs. McLaughlin & Co., to the amount of \$1,171.55. One of the tanks of the steamer was also increased in size by Messrs. McLaughlin at a cost of \$60. The "Lansdowne" was placed in commission on the 27th May, and was engaged in supplying fog-alarm stations with coal and lighthouses with oil and other articles until 30th June.

"STANLEY."

The steamer "Stanley" began her work in November, 1892, by securing the automatic buoys belonging to Indian Rocks and Tryon Shoals, which were taken to Charlottetown. The winter service was begun on the 1st of December as advertised. The steamer continued on the route between Charlottetown and Pictou until the 24th of December; after that date her trips were made between Georgetown and Pictou during the winter. On the 17th February, this steamer was laid up at Georgetown for the purpose of cleaning the boilers. On the 1st March the trips were resumed, but on the sixth of the same month while working in heavy ice her propeller blades were broken. The steamer reached Pictou on the 8th, and the engineers, crew and labourers were engaged up to the 18th tipping the vessel forward to enable them to take off the old blades from the propeller and put on new ones. The "Stanley"

resumed her work on the Georgetown-Pictou Route until the 7th of April, when she began to ply between Charlottetown and Pictou and continued on that route until the 21st of April. The vessel was then placed upon the slip at Pictou and prepared for the Fisheries Protective Service. During the winter 70 round trips were made. The gross earnings were \$10,955.50, and cost of maintenance \$16,228.39.

“ALERT.”

On the 6th July, this steamer left Quebec to replace buoys at St. Croix. A special trip was made on the 8th of the same month with officers and men of B Battery to assist the “Constance,” in the capturing of smugglers at Trinity Bay. On the return of the “Alert” stores were placed on board and the vessel proceeded on the 16th to supply light stations on the shores of the Gulf of St. Lawrence and the Straits of Belle Isle. On her return to Quebec, the vessel was placed in the graving dock for repairs. The work was resumed on the 21st September, and gas and other buoys were attended to, after which a full cargo of supplies and provisions were taken on board for lights in the Gulf of St. Lawrence and Straits of Belle Isle. From that time forward the vessel was constantly engaged in attending lights, gas buoys and lightships until the 23rd of November, when she was placed in winter quarters. The “Alert” began work on the 17th April, 1893, and was regularly employed in attending to buoy service and towing lightships, to their positions until the 14th of May. On that day the steamer was sent to bring up to Quebec the passengers of the stranded steamship “Wandram.” Supplies for lighthouses were placed on board and the vessel left Quebec, on the 20th of June, for Baie des Chaleurs, Magdalen Islands, Gaspé Coast and north and south shores of the St. Lawrence River.

The “Alert” was in active service 204 days, undergoing repairs and securing outfit 30 days, and was in winter quarters 132 days.

During the absence of the “Alert” from Quebec the steamer “Anglesea” was hired at a cost of \$2,600 to attend to gas and other buoys.

“DRUID.”

The “Druid” was engaged in quarantine service for the Department of Agriculture, but remaining under the control of the Department of Marine and Fisheries. The cost of maintaining the officers and men was about 40 cents per day.

“DOLPHIN.”

The “Dolphin” has for many years been used as a patrol boat in Quebec harbour by the Harbour Police but since the force has been disbanded the launch has been used for other services.

“QUADRA.”

The “Quadra,” was employed in the general lighthouse and buoy service in British Columbia. A special trip was made to the west coast of Vancouver Island, for the purpose of collecting evidence in the Behring Sea arbitration. A similar trip was made and then the steamer entered upon the regular service of attending lighthouses and completing buoy service. This vessel was laid up for the

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winter months on the 30th of November, 1892. During the winter months the vessel was thoroughly cleaned and painted. The "Quadra," was again put in commission on the 15th March, 1893, but was unable to do much of her usual work, in the early spring, as she was sent on a special trip with a Police Force under the Provincial Government, ordered to Kitkatla and other points north, to quell an Indian disturbance. One month was also occupied in assisting the International Boundary Commissioner in distributing his survey parties on the coast of Alaska. The steamer returned to Victoria on the 22nd May, and has been engaged in the general work of the agency since that date.

"SIR JAMES DOUGLAS."

When the new steamer "Quadra" took the place of the "Sir James Douglas," in British Columbia, the department had not sufficient work to keep the latter steamer constantly employed; tenders were, therefore, invited for the purchase of the "Douglas." No tenders were received. The department, with a view of making use of the steamer, caused an examination of the machinery and boiler to be made, which showed that the boiler had collapsed and was unsafe. The cost of a new boiler and other repairs, it was reported, would be in the vicinity of \$6,000. As no special reason has presented itself during the past year for incurring this expense the steamer has been allowed to remain out of commission.

"BAYFIELD."

The "Bayfield" is a wooden steamer of 150 tons gross and 90 tons register and is employed for the purpose of the hydrographic survey of Georgian Bay. This vessel left Owen Sound on the 4th May, 1893, and was employed on her usual work during the season.

The following statement shows the expenditure for maintenance and repairs of each steamer, and the receipts for the fiscal year ended 30th June, 1893.

	Repairs.	Main- tenance.	Total.	Receipts.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
"Newfield"	21,993 41	15,470 23	37,463 64	
"Stanley"	3,942 38	18,718 42	22,660 80	10,955 50
"Lansdowne"	6,282 91	21,297 82	27,580 73	
"Quadra"	1,185 32	27,408 59	28,593 91	2,253 96
"Alert"	1,381 17	17,573 21	18,954 38	
"Druid"	603 91	7,106 47	7,710 38	
"Sir James Douglas"	62 29	2,193 95	2,256 24	
	35,451 39	109,768 69	145,220 08	13,209 46

Expenditure	\$145,220 08
Receipts	13,209 46
Excess of expenditure.....	\$132,010 62

COST OF MAINTAINING LIGHTHOUSES AND DOMINION STEAMERS.

The following comparative statement shows the expenditure on account of maintenance of lighthouses, steam fog-whistles, and steam fog-horns from the years 1883-84 to 1892-93, both inclusive. The method of auditing all accounts in the department before payment, has been followed of late years :—

Year.	No. of Lights.	No. of Fog-whistles.	No. of Fog-horns, Bell and Bombs.	Cost of Maintenance.	
				\$	cts.
1883-84	597	23	10	456,868	33
1884-85	617	23	12	478,064	04
1885-86	625	23	16	505,929	27
1886-87	658	23	24	476,514	44
1887-88	664	23	27	464,471	76
1888-89	675	24	29	459,423	80
1889-90	705	23	32	434,802	10
1890-91	710	23	31	455,254	42
1891-92	741	22	56	445,140	16
1892-93	747	22	56	480,553	42

STATEMENT showing cost of maintaining Dominion Steamers from 1884 to 1892.

Year.	Cost of Maintenance.	
	\$	cts.
1883-84	123,816	25
1884-85	148,864	26
1885-86	130,759	83
1886-87	141,424	42
1887-88	150,659	19
1888-89	126,629	33
1889-90	114,959	20
1890-91	111,437	03
1891-92	127,406	28
1892-93	146,521	77

HARBOUR POLICE.

An Act to amend the Act respecting the Harbour and River Police of the province of Quebec, was assented to on the 1st April, 1893. The Act provided for the abolition of the tonnage duty which had been levied for the maintenance of harbour police, when the force ceased to be maintained.

For numerous reasons already made public by the Minister of Marine and Fisheries, in Parliament, it was considered advisable to disband the harbour and river police force of the port of Quebec. It was found that vessels arriving in United States ports from the province of Quebec, were compelled to pay dues owing

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to the fact that tonnage dues were collected from foreign vessels arriving in Quebec for harbour police purposes. The Quebec Board of Trade, in a memorial asked among other things, that the tax be abolished. Vessels arriving from ports in Ontario were exempted from certain fees in United States ports, whilst Quebec vessels were compelled to pay all port charges.

It was also found that the causes which originally existed for the maintenance of a harbour police force have not existed within recent years. An Order in Council was issued on the 20th April, 1893, disbanding the harbour and river police at Quebec, and giving authority for the payment of gratuities voted by Parliament, to the members of the force. The total amount paid was \$3,103.00.

CERTIFICATES TO MASTERS AND MATES FOREIGN SEA-GOING.

The report of the chairman of the Board of Examiners of Masters and Mates of sea-going ships for the twelve months ending 30th June, 1893, will appear as an appendix to this report.

During the past twelve months it will be seen by reference to the report in the appendix, the Board of Examiners have held meetings for the examination of candidates at the ports of Halifax, N.S., St. John, N.B., Quebec and Yarmouth, N.S. Ninety-six candidates presented themselves for examination at the ports named; 64 succeeded in passing, while 32 failed. Of the 64 that passed, 24 received certificates as master and 40 as mate.

The number of candidates who have passed and obtained sea-going masters' certificates of competency since the Act went into operation, viz., 16th September, 1871, to the 30th June, 1893, is 1,848, and the amount paid for certificates at the rate of \$10 each, \$18,480. During the same period 1,271 candidates received certificates of competency as mate, and the amount paid, at the rate of \$5 each was \$6,355.

In an appendix to this report a list will be found of all who have obtained certificates of competency and service, either as master or mate, during the year ended 30th June, 1893.

During the past eighteen months 4 certificates of service, foreign sea-going, have been granted.

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During the twelve months ended 30th June, 1893, the number of candidates who have passed and obtained masters' certificates of service is 62, and the amount paid for their certificates at the rate of \$4 each was \$248. During the same period 21 candidates applied for certificates of service as mate, and the amount paid at the rate of \$2 each was \$42.

Applicants for certificates of competency as master number 140, and the amount paid at the rate of \$8 each was \$1,120. Seventy-five applied for certificates of competency as mate, and the amount paid at the rate of \$4 each was \$300. The amount received for renewed certificates of competency and service was \$83.50, making a total of \$1,793.50 received from masters' and mates' inland and coasting certificates.

A list of certificates issued during the twelve months ended 30th June, 1893, will be found in the supplement to this report.

The total amount of fees received on account of certificates of competency and service, sea-going and inland and coasting, during the fiscal year ended 30th June, 1893, amounted to \$2,484, and the amount in detail expended on account of this service, as will be seen by reference to Appendix No. 1, to this report, was \$4,116.99. The vote for this service was \$5,000, and the sum expended to 30th June, 1893, \$4,116.99, leaving an unexpended balance of \$883.01. A list of certificates cancelled during the last six months will also be found in the supplement to this report.

The following statement shows the total receipts and expenditure on account of masters and mates since 1871:—

			Expenditure.	Receipts.
			\$	\$
			cts.	cts.
For the fiscal year ended 30th June, 1871			1,410 45	
do	do	1872	4,312 07	1,344 00
do	do	1873	6,466 18	4,963 00
do	do	1874	4,520 19	2,995 00
do	do	1875	5,696 62	2,715 00
do	do	1876	4,672 08	2,021 87
do	do	1877	4,050 00	1,740 50
do	do	1878	4,249 76	1,296 50
do	do	1879	4,250 12	1,334 50
do	do	1880	4,253 43	1,547 00
do	do	1881	3,888 41	1,333 50
do	do	1882	3,965 19	1,152 50
do	do	1883	4,021 20	1,314 00
do	do	1884	3,909 59	9,437 50
do	do	1885	4,324 15	2,897 00
do	do	1886	5,245 28	2,152 00
do	do	1887	4,855 98	2,172 00
do	do	1888	5,060 96	3,220 80
do	do	1889	4,381 04	2,202 00
do	do	1890	4,117 83	2,186 00
do	do	1891	4,255 24	2,586 00
do	do	1892	4,563 88	2,149 00
do	do	1893	4,116 99	2,484 00
Receipts			100,386 64	55,243 67
			55,243 67	
Excess of expenditure over receipts			45,142 97	

WRECKS AND CASUALTIES.

The total number of casualties to British, Canadian and foreign sea-going vessels reported to the department as having occurred in Canadian waters and to Canadian sea-going vessels in waters other than those of Canada during the twelve months ended 31st December, 1893, was 190, representing a tonnage of 59,421 tons register, and the amount of loss, both partial and total, to vessels and cargoes so far as ascertained was \$807,113.

The number of lives reported lost in connection with these casualties was 49. A statement of the wrecks and casualties forms an appendix to this Report.

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SEAGOING CERTIFICATES.

The question of providing greater safety for life and property on ship-board not only by having ships and steamships undergo supervision, but also that the persons navigating them should furnish some evidence of their competency to fill the position in which they are placed, had more or less agitated the public mind in the United Kingdom from 1843 to 1854, when the matter took definite shape in the enactments contained in the Merchant Shipping Act of 1854. In 1836, a select committee appointed by the Imperial Parliament to inquire into the increased number of shipwrecks reported:—

“That the frequent incompetency of masters and officers appears to be admitted on all hands, this incompetency sometimes arising from the want of skill and knowledge in seamanship, but more frequently from the want of an adequate knowledge of navigation; it being proved that some masters of merchant vessels have been appointed to command after having been for a very short time at sea; that others have hardly known how to trace a ship's course on the chart, or how to ascertain the latitude by a meridian altitude of the sun; that many are unacquainted with the use of the chronometer, and that very few indeed are competent to ascertain the longitude by lunar observations; while some are appointed to command merchant vessels at periods of such extreme youth (one instance is given of a boy of 14, all of whose apprentices were older than himself), and others so wholly destitute of maritime experiences (another instance being given of a porter from a shipowner's warehouse who was made a captain of one of his ships), that vessels have been met with at sea who were out of their reckoning by several hundreds of miles, and others have been wrecked on coasts from which they believed themselves to have been hundreds of miles distant at the time.”

In 1843, a select committee on shipwreck, appointed by the British House of Commons, reported that on the question of the competency of masters and mates, the evidence taken was somewhat contradictory; most of the leading shipowners being hostile to the establishment of boards to examine masters and mates, claiming that compulsory examination was an unnecessary interference with their right to select such persons as they think would serve them best in the various duties allotted to them.

In 1850, a measure was introduced in the Imperial Parliament, with the object of requiring that every one who undertook the responsibility of commanding a ship should satisfy some competent tribunal that they were not deficient in the necessary qualification and during the discussion which ensued, instances were given where men grossly unfit had been placed in charge of vessels. The existing legislation is contained in the Merchant Shipping Act of 1854, sections 131 to 140, and in the Merchant Shipping Act of 1862, sections 5 to 12. From 1854 to 1862 the system of granting certificates to masters and mates had worked so well that in the Act of 1862 provision was made to extend the system to first and second class engineers, and in the United Kingdom the system is considered so conducive to safety, that the enactments of 1883 and 1887 of the Imperial Parliament contain provisions requiring the skippers and second hands of trawlers of 25 tons and upwards to be examined and hold certificates of competency and representative bodies in the United Kingdom have quite recently urged the Board of Trade to raise the standard of examinations, and to extend the system to other classes of seamen.

Previous to 1870 much difficulty had been experienced by masters and mates of vessels registered in Canada, from the fact that the Imperial Merchant Shipping laws required them to have certificates of competency when clearing from a port in the United Kingdom to any port in the world other than a port in Canada. This necessitated the master either giving up his ship or passing an examination before the Imperial Boards of examiners or evading the law by hiring a certificated master and mate to clear the ship and then sailing without them. There were no facilities at that time in Canada, by which masters and mates or engineers could obtain Canadian certificates which would be valid in the United Kingdom.

The matter was brought to the notice of the Imperial Board of Trade by this department, and in 1869, the Imperial Parliament passed the following enactment, viz. :—

Where the legislature of any British possession provides for the examination of, and granting of certificates of competency to persons intending to act as masters, mates, or engineers on board British ships, and the Board of Trade reports to Her Majesty that they are satisfied that the examinations are so conducted as to be equally efficient as the examinations for the same purpose in the United Kingdom under the Acts relating to merchant shipping, and that the certificates are granted on such principles as to show the like qualifications and competency as those granted under the said Acts, and are liable to be forfeited for the like reasons and in the like manner, it shall be lawful for Her Majesty, by Order in Council :—

1. To declare that the said certificates shall be of the same force as if they had been granted under the said Acts.

2. To declare that all or any of the provisions of the said Acts which relate to certificates of competency granted under those Acts shall apply to the certificate referred to in the said order.

3. To impose such conditions and to make such regulations with respect to the said certificate, and to the use, issue, delivery, cancellation, and suspension thereof, as to Her Majesty may seem fit, and to impose penalties not exceeding fifty pounds for the breach of such condition and regulations.

Upon the publication in the *London Gazette* of any such Order in Council as last aforesaid, the provisions therein contained shall, from a date to be mentioned for the purpose in such order, take effect as if they had been contained in this Act.

It shall be lawful for Her Majesty in Council to revoke any order made under this section.

In 1870, the Canadian Parliament passed the Act known as the Act respecting certificates to masters and mates of ships. It rendered it imperative for masters and mates clearing a Canadian registered ship over 150 tons registered tonnage for sea-going voyages to hold valid certificates of competency or service. Examiners were appointed and the law put in operation on the 1st January, 1871. Steps were taken to assure the Board of Trade, that the examinations in Canada would be so conducted as to be equally efficient with the examination for the same purpose in the United Kingdom, and Her Majesty issued an Order in Council, declaring Canadian certificates of competency to be of the same force as if they had been granted by the Board of Trade. This Act did not interfere with masters and mates going on coasting voyages to the United States or to Newfoundland.

This system has been found to be—apart from the question of greater safety—of great advantage to ship masters, as Canadian certificates of competency are not only valid in the United Kingdom but are also valid in any British Possessions.

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The following British Possessions adopted the Imperial system in regard to certificated masters, mates and engineers, viz. :—

Canada, masters and mates in.....	1871
do 1st and 2nd engineers.....	1887
Malta, masters, mates and engineers in... ..	1874
Victoria do do	1870
New Zealand do do	1872
New South Wales, masters and mates and 1st and 2nd engineers in	1872
South Australia, masters and mates and 1st and 2nd engineers.....	1874
Tasmania, master, mates and engineers.....	1876
Bengal do do	1876
Newfoundland, masters and mates.....	1877
Bombay, masters, mates and engineers.....	1877
Queensland do do	1877
Hong Kong do do	1884
Straits Settlements, 1st and 2nd engineers.....	1888
do masters and mates	1890
Mauritius do	1891

INLAND AND COASTING CERTIFICATES.

The numerous disasters to shipping engaged in the coasting trade and to vessels plying on the inland waters of the Dominion, and the unprecedented loss of life which occurred in connection with disasters to shipping during *1881 and 1882, on the inland waters, brought into prominence the question whether for the greater protection of life and property, a system similar to that which prevailed in regard to masters and mates making sea voyages, should be applied to masters and mates engaged in the coasting trade or navigating the inland waters, and whether there was an uncalled for risk to life and property in vessels to be commanded by men whose qualifications had not been tested by some competent tribunal, and it was pointed out during the discussion which ensued on the introduction of the Bill in Parliament, that in other occupations in life where the safety of life and property is involved, men who occupy positions of trust are called upon to show whether they possess the qualifications necessary for the proper discharge of the duties devolving upon them. An act was accordingly passed by the Dominion Parliament during the session of 1883. Examiners were appointed and rules prepared of a much lower standard than the rules fixing the qualifications of masters in making deep-sea voyages, and examinations held at different ports to suit the convenience of applicants, and the Act was finally put in operation on the 1st January, 1884. Under the provisions of this Act, every sailing ship registered in Canada over one hundred tons register tonnage, requires to have a certificated master, and also requires a certificated mate if over two hundred tons register tonnage, and every steamship registered in Canada, of whatever tonnage requires to have a certificated master, and every steam-

*In 1881, 249 lives were lost. In 1882, 116 lives were lost.

ship registered in Canada, and allowed by law to carry more than forty passengers, must have a certificated mate in addition to a certificated master. These provisions, however, do not apply to pleasure yachts not carrying passengers or goods for hire or to ships employed solely in fishing, or to barges or other vessels having neither masts, sails or rigging and not being steamships.

Under the Act referred to 2,745 certificates have been issued up to 31st December last. Of that number 1,443 were service certificates and 1,302 were competency.

In addition to issuing certificates to masters and mates of sea-going ships, the Imperial Board of Trade issues certificates to masters and mates and to "Home-trade ships." These certificates correspond to some extent to the Canadian coasting certificates, but are much more restricted in their geographical boundaries. The Imperial home trade certificate is limited to the coast of the United Kingdom, the Islands of Guernsey, Jersey, Sark, Alderney and Man and the continent of Europe between the river Elbe and Brest inclusive. The Canadian coasting certificate extends to the United States of America to the West Indian Islands and to the east coast of South America. Previous to the existing legislation in regard to coasting voyages, masters and mates of vessels over 150 tons register making voyages to the West Indian Islands or to South or Central America, required to possess certificates for sea-going voyages under the provisions of the Act of 1870. Under the Act of 1883, the certificates are divided into three classes, viz.:—Certificates for the coasting trade, and certificates for navigating the great inland waters and certificates for navigating the minor inland waters, and these three classes are subdivided by certificates for "square rigged" vessel, "fore and aft rigged" vessel, for "steam tug," "freight steamboats," "steam ferries," and "passenger steamboats."

In 1886, arrangements were entered into and legislation effected whereby Canadian certificates to 1st and 2nd class engineers, who pass an examination as efficient as examinations in the United Kingdom for the same purpose, are valid in Great Britain or any British possession, and certificates to 1st and 2nd class engineers issued by the Imperial Board of Trade became valid in Canada.

An official inquiry into a casualty which occurred to the steamer "Rustler" on the Miramichi River, in September last, led to the discovery that at the ports of Newcastle, Chatham and St. John, certain tug-boats and steam ferry boats had been allowed to run without certificated masters, although the law which requires such vessels to carry certificated masters had been in operation since 1st January, 1884. Further inquiry revealed the fact that in October last, in the St. John district, 33 steamboats—principally tug-boats although ferry boats and passenger boats were included—were running without certificated masters.

Capt. Thomas, the local examiner at St. John, was sent to Miramichi for the accommodation of applicants for certificates at that point. A number of the masters at St. John received certificates of service. Others passed the examination and received certificates of competency, and so far as the department is aware all the steamboats in the St. John district have complied with the law.

In May last, a court of inquiry was held at New Providence, one of the Bahama Islands to inquire into the circumstances attending the stranding of the schr. "Topaz," of Liverpool, N.S., on the Bahama bank, on the 6th of May, 1893, a copy of the opinion of the court follows, and it will be seen that the disaster was attributed to the incompetency of the mate who had charge of the vessel. The mate was not a certificated officer.

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OPINION OF THE COURT.

"I am of the opinion that the disaster which befell the schr. "Topaz" as above described must be attributed to the incompetency of the mate, who, owing to the master's illness, had been in charge of the vessel for several days. This man admits that he is not a navigator, and the working of the vessel through a difficult passage was attempted to be effected by him merely by dead reckoning and his own judgment. On the 5th May, at noon, he supposed himself to be in Lat. 24° 25' N. and Long. 80° 25' W., and he hoped by steering E.N.E. to get to the centre of the Straits of Florida and then to steer north. This is his own explanation. On the 6th May, with a fair wind and in broad daylight he found his vessel in soundings and although he had been steering E.N.E. for nearly 24 hours, he still supposed the vessel to be on the Florida shore. It seems an almost incredible blunder, and I drew the mate's attention to it, after carefully re-examining him. I feel satisfied, however, that it was an error in judgment of a man who unfortunately was placed in a position for which he was incapacitated."

(Signed) JAS. M. RAE,
S. & C. Magistrate.

Up to the 31st December, 1893, 3,065 sea-going certificates of competency and 1,443 of service have been issued to masters and mates, and up to the same date, 1,302 certificates of competency and 2,955 certificates of service have been issued to masters and mates engaged in the coasting trade and in navigating the inland waters. Statements in detail follow, showing the ports at which candidates passed and the description of vessel for which they obtained certificates.

STATEMENT of Sea-going Certificates of Competency issued to Masters and Mates of from 1871 to 1893, both years included, at different Ports in the Dominion.

	Victoria.		Halifax.		St. John.		Quebec.		Yarmouth.		Charlottetown.	
	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.
1871					25	5						
1872			63	1	113	8	24					
1873			48	2	73	5	4					
1874			61	12	83	11	5					
1875			53	15	70	11	7	2				
1876			35	24	53	24	10					5
1877			24	18	48	29	3	6				13
1878	(Ottawa	1)	28	14	30	18	4	10	12	5	9	3
1879			16	18	22	22	3	4	21	17	4	4
1880			24	29	16	25	8	4	23	24	4	4
1881			19	33	19	25	4	5	27	16	4	1
1882			32	25	17	20	2	4	8	22		
1883			35	37	33	30	3	4	16	24		
1884			18	32	19	25	2		12	18	1	1
1885			25	36	19	25	3	6	17	17		
1886			34	31	20	18	5	3	26	16		
1887			19	33	18	20	3	3	17	17		
1888			24	18	14	28	2	12	14	9		
1889	1		27	23	17	16	11	5	16	10		
1890			26	26	17	16	2	1	8	9		
1891	3	2	22	20	30	13	1	5	5	16		
1892	3	2	16	16	8	11	4		20	8		
1893	1	1	16	10	11	15		3	5	6		
	8	5	665	473	775	420	110	75	247	234	40	13

NOTE.—A large number of the mates' certificates have been cancelled, as the holders have passed for higher grade.

STATEMENT of Masters and Mates' Certificates of Competency, Coasting,

NOTE.—Many of the certificates are dual certificates, permitting the holders to sail in steamers and tugs as the numbers run consecutively; the classification shows the kind

COMPETENCY,

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Yarmouth.....	1 master, F. and A., coasting.					

COMPETENCY,

Cobourg.....			1 master, square rig, inland.			
Collingwood.....					4 masters, steamers, inland.	1 mate, str., inland.
Georgeville, Que.....						
Halifax.....	1 master, F. and A., coasting.					
Kingston.....			2 masters, F. and A., inland.			
Ottawa.....						
Owen Sound.....					1 master, steamer, inland.	2 mates, str., inland.
Peterborough.....			1 master, square rig, inland.			
Picton, Ont.....			1 master, F. and A., inland.			
Prescott.....						1 mate, str., inland.
Quebec.....	1 master, steamer, coasting.				1 master, steamer, inland.	
Sydney, C.B.....	do do					
do.....	8 masters, square rig, coasting.					
St. Catharines.....			3 masters, F. and A., inland.	1 mate, F. and A., inland.	9 masters, steamers, inland.	do do
St. John.....	14 masters, F. and A., coasting.				1 master, steamer, inland.	
do.....	1 master, steamer, coasting.					
do.....	2 masters, square rig, coasting.					
Toronto.....			2 masters, F. and A., inland.		7 masters, steamers, inland.	

Marine and Fisheries.

Inland and Minor Inland, issued from 1883 to 1893, both years included.

well as sailing vessels; each certificate that has been issued has its own number, whether dual or not, and of vessels in which the holders of certificates are allowed to serve.

1883.

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.

1884.

.....		1 master, str., minor inland.					
.....		2 masters, strs., minor inland.					
.....		1 master, str., minor inland.					
.....		1 master, str., minor inland.					

STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
 COMPETENCY

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Victoria.....	3 masters, steamers, coasting.	1 mate, str., coasting.				
Windsor.....			1 master, F. and A., inland.		2 masters, steamers, inland.	
Yarmouth.....	2 masters, square rig, coasting.					

COMPETENCY,

Kingston.....			2 masters, F. and A., inland.		3 masters, steamers, inland.	
Montreal Ottawa.....						2 mates, str., inland.
Owen Sound.....			2 masters, F. and A., inland.	1 mate, F. and A., inland.	1 master, steamer, inland. do do	1 mate, str., inland.
Quebec. St. Catharines.....			6 masters, F. and A., inland.		6 masters, steamers, inland.	2 mates, str., inland.
St. John.....	3 masters, F. and A., coasting.					
Sydney.....	1 master, F. and A., coasting.					
do.....	2 masters, square rig, coasting.	1 mate, square rig, coasting.				
Toronto.....					10 masters, steamers, inland.	3 mates, str., inland.
Victoria.....		1 mate, str., coasting.				
Yarmouth.....	1 master, square rig, coasting.					

COMPETENCY

Arichat.....	7 masters, F. and A., coasting.					
do.....	4 masters, square rig, coasting.	1 mate, square rig, coasting.				
Kingston.....			2 masters, F. and A., inland.			1 mate, str., inland.
Lunenburg.....	1 master, square rig, coasting.					
do.....	1 master, F. and A., coasting.					

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1884—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.

1885.

		1 master, str., minor inland. do do	1 mate, str., minor inland. 1 mate, str., minor inland. do do				
1 master, steam tug, inland.		3 masters, str., minor inland.					
		1 master, str., minor inland.					

1886.

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STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
COMPETENCY,

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Montreal						do do
Owen Sound.....			1 master, F. and A., inland.		1 master, steamer, inland.	
Quebec.....		1 mate, square rig, coast- ing.				
St. Catharines.....		1 mate, F. and A., coasting.	do do		3 masters, steamers, inland.	
St. John.....	3 masters, F. and A., coasting.	do do				
do	1 master, steamer, coasting.					
do	1 master, square rig, coasting.					
Sydney.....	1 master, F. and A., coasting.					
do	1 master, square rig, coasting.					
Toronto.....			3 masters, F. and A., inland.	1 mate, F. and A., inland.	4 masters, steamers, inland.	4 mates, str., inland.
Victoria.....	1 master, steamer, coasting.	1 mate, str., coasting.				
Yarmouth.....	2 masters, F. and A., coasting.					

COMPETENCY,

Kingston.....			2 masters, F. and A., inland.		1 master, steamer, inland.	
Lunenburg.....	6 masters, F. and A., coasting.					
do	1 master, square rig, coasting.					
Ottawa					do do	1 mate, str., inland.
Quebec	1 master, square rig, coasting.				do do	
St. Catharines.....			2 masters, F. and A., inland.	3 mates, F. and A., inland.	9 masters, steamers, inland.	2 mates, str., inland.
St. John.....	5 masters, F. and A., coasting.			1 mate, square rig, inland.		

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1886—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		1 master, str., minor inland.	2 mates, str., minor inland.				
						1 master, st. tug, minor inland.	
		1 master, str., minor inland.					
		do do	1 mate, str., minor inland.				

1887.

1 master, steam tug, inland.						1 master, st. tug, minor inland.	
		2 masters, str., minor inland.					
1 master, steam tug, inland.			1 mate, str., minor inland.			4 masters, st. tug, minor inland.	
		3 masters, str., minor inland.	do do				

STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
COMPETENCY

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
St. John.....	1 master, steam tug, coasting.					
do	1 master, steamer, coasting.					
do	2 masters, square rig, coasting.					
Sydney.....	3 masters, square rig, coasting.					
Toronto.....			5 masters, F. and A., inland.		2 masters, steamers, inland.	5 mates, strs., inland.
Victoria.....	1 master, square rig, coasting.					
Yarmouth.....	1 master, F. and A., coasting.					

COMPETENCY,

Halifax	1 master, F. and A., coasting.					
Kingston			2 masters, F. and A., inland.			
Lunenburg.....	2 masters, F. and A., coasting.					
do	1 master, square rig, coasting.					
Ottawa					2 masters, steamers, inland.	
Quebec.....						
St. Catharines			10 masters, F. and A., inland.	1 mate, F. and A., inland.	9 masters, steamers, inland.	4 mates, steamers, inland.
do						
St. John.....	7 masters, F. and A., coasting.					
do	2 masters, square rig, coasting.					2 mates, steamers, inland.
Sydney	3 masters, square rig, coasting.	1 mate, square rig, coasting.				
do	3 masters, F. and A., coasting.					
Toronto			2 masters, F. and A., inland.	2 mates, F. and A., inland.	2 masters, freight str., inland.	

Marine and Fisheries

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1887—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		1 master, str., minor inland.				1 master, st. tug, minor inland.	
		3 masters, str., minor inland.					

1888.

		1 master, str., minor inland.	2 mates, str., minor inland.				
		do					
		do	2 mates, str., minor inland.				
1 master, steam tug, inland. do		4 masters, str., minor inland.	4 mates, str., minor inland.			1 master, st. tug, minor inland.	
		2 masters, str., minor inland.	1 mate, str., minor inland.				
			2 mates, str., minor inland.				
		2 masters, str., minor inland.				1 master, st. tug, minor inland.	

STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
COMPETENCY,

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Toronto.....					4 masters, steamers, inland.	1 mate, str., inland.
Victoria.....	1 master, steamer, coasting.					
Yarmouth.....	1 master, square rig, coasting.					

COMPETENCY,

Halifax.....	1 master, F. and A., coasting.					
Kingston.....			4 masters, F. and A., inland.	6 mates, F. and A., inland.	1 master, frt. steamer, inland.	2 mates, str., inland.
Lunenburg.....	1 master, square rig, coasting.	1 mate, square rig, coasting.				
do.....		1 mate, F. and A., coasting.				
Ottawa.....					2 masters, steamer, inland.	
St. Catharines.....			3 masters, F. and A., inland.	8 mates, F. and A., inland.	7 masters, steamer, inland.	8 mates, frt. steamer, inland.
do.....					3 masters, frt. str., inland.	
St. John.....	21 masters, F. and A., coasting.					
do.....	2 masters, square rig, coasting.	1 mate, str., coasting.				
Sydney.....	1 master square rig, coasting.					
Toronto.....			1 master, F. and A., inland.		7 masters, steamer, inland.	3 mates, str., inland.
Victoria.....	2 masters, steamer, coasting.					

COMPETENCY,

Halifax.....	5 masters, F. and A., coasting.	2 mates, F. and A., coasting.				
Kingston.....						1 mate, str., inland.
Lunenburg.....	1 master, F. and A., coasting.					

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1888—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		1 master, str., minor inland.					

1889.

		1 master, str., minor inland.	2 mates, str., minor in- land.				
		8 masters, str., minor inland.	do			1 master, st. tug, minor inland.	
1 master, steam tug, inland.		3 masters, frt. str., minor inland.	3 mates, str., minor in- land.			3 masters, st. tug, minor inland.	
		3 masters, pass. str., m'or. inland	do				
1 master, steam tug, inland.		1 master, str., minor inland.				1 master, st. tug, minor inland.	

1890.

1 master, steam tug, inland.							
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STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
COMPETENCY,

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Ottawa				2 mates, F. and A., inland.	3 masters, steamers, inland.	
Quebec.....	3 masters, F. and A., coasting.		1 master, F. and A., inland.			
St. Catharines.....			11 masters, F. and A., inland.	5 mates, F. and A., inland.	28 masters, frt. str., inland.	13 mates, steamers, inland.
St. John.....	16 masters, F. and A., coasting.	1 mate, F. and A., coasting.			1 master, steamer, inland.	
do	5 masters, square rig, coasting.					
Sydney	2 masters, square rig, coasting.					
Toronto.....			1 master, F. and A., inland.	1 mate, F. and A., inland.	2 masters, steamer, inland.	1 mate, str., inland.
Victoria.....	6 masters, steamers, coasting.					
do	1 master, F. and A., coasting.	2 mates, F. and A., coasting.				
Yarmouth.....	2 masters, square rig, coasting.					

COMPETENCY,

Gravenhurst.....						1 mate, str., inland.
Halifax.....	1 master, F. and A., coasting.					
Kingston.....			1 master, F. and A., inland.	2 mates, F. and A., inland.	5 masters, steamers, inland.	3 mates, str., inland.
Lunenburg.....	3 masters, F. and A., coasting.	1 mate, square rig, coasting.				
Ottawa.....					1 master, frt. str., inland.	1 mate, str., inland.
Quebec.....					2 masters, steamers, inland.	
Southampton						
St. Catharines.....			11 masters, F. and A., inland.	8 mates, F. and A., inland.	45 masters, steamers, inland.	19 mates, steamers, inland.
do						

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1890—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		2 masters, strs., minor inland.					
		3 masters, strs., minor inland.	1 mate, str., minor in- land.				
4 masters, steam tug, inland.		2 masters, strs., minor inland.	4 mates, strs., minor in- land.				
			1 mate, str., minor in- land.				
		1 master, str., minor inland.					

1891.

		2 masters, strs., minor inland.	1 mate, str., minor in- land.				
		2 masters, strs., minor inland.					
1 master, steam tug, inland.		5 masters, strs., minor inland.	1 mate, str., minor in- land.			1 master, steam tug, minor in- land.	
2 masters, steam tug, inland.						3 masters, steam tugs, minor in- land-	2 mates, steam tugs, minor in- land.

STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
COMPETENCY,

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
St. John.....	16 masters, F. and A., coasting.	4 mates, F. and A., coasting.			4 masters, steamers, inland,	1 mate, str., inland.
do	1 master, steamer, coasting.					
do	3 masters, square rig, coasting.					
Sydney	1 master, square rig, coasting.				1 master, steamer, inland.	
do	5 masters, F. and A., coasting.					
Toronto.....			1 master, F. and A., inland.		2 masters, steamer, inland.	6 mates, str., inland.
Vancouver.....	1 master, steamer, coasting.					
Victoria	2 masters, steamer, coasting.	6 mates, str., coasting			1 master, steamer, inland.	
do	1 master, F. and A., coasting.	6 mates, F. and A., coasting.				

COMPETENCY,

Guysboro'.....	1 master, F. and A., coasting.					
Halifax.....	1 master, F. and A., coasting.					
do	2 masters, square rig, coasting.					
Kingston.....			1 master, F. and A., inland.	2 mates, F. and A., inland.	1 master, pass. str., inland.	2 mates, pass. steamers, inland.
Lockeport	1 master, square rig,					
Lunenburg.....	4 masters, square rig, coasting.					
Ottawa						
Quebec.....	1 master, passenger steamer.					
do	1 master, F. and A., coasting.					
Rat Portage.....						

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1891—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		1 master, str., minor inland.					

1892.

		3 masters, pass. strs., minor in- land.	3 mates, pass. strs., minor inland.				
		5 masters, pass. strs., minor in- land.	2 mates, pass. strs., minor inland.				
		1 master, pass. str., minor inland.	do do ..	1 master, F. and A., minor in- land.			
		1 master, pass. str., minor inland.				2 masters, steam tugs, minor in- land	

STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
COMPETENCY.

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Sydney	4 masters, square rig, coasting.					
do	5 masters, F. and A., coasting.					
St. Catharines			4 masters, F. and A., inland.	3 mates, F. and A., inland.	8 masters, pass. str., inland.	2 mates, frgt. steamers, inland.
do					7 masters, frgt. str., inland.	5 mates, pass. steamers, inland.
St. John	11 masters, square rig, coasting.	2 mates, square rig, coasting.				
do	4 masters, F. and A., coasting.	3 mates, F. and A., coasting.				
do		1 mate, pass. steamer, coasting.				
Toronto			1 master, F. and A., inland.		2 masters, pass. str., inland.	4 mates, pass. steamers, inland.
Vancouver	1 master, F. and A., coasting.					
Victoria	4 masters, pass. str., coasting.	1 mate, square rig, coasting.				
do	1 master, F. and A., coasting.	6 mates, F. and A., coasting.				
do		4 mates, pass. steamer, coasting.				
do		1 mate, str., coasting.				
Yarmouth	1 master, square rig, coasting.	2 mates, F. and A., coasting.				
do		1 mate, square rig, coasting.				

COMPETENCY.

Chatham, N.B.						
Halifax	4 masters, square rig, coasting.					
do	4 masters, F. and A., coasting.	1 mate, F. and A., coasting.				

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1892—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
4 masters, steam tugs, inland.	1 mate, steam tug, in- land.	4 masters, freight strs., minor in- land.				3 masters, steam tugs, minor in- land.	
1 master, steam tug, inland.		6 masters, pass. strs., minor in- land.	4 mates, pass. strs., minor inland.			do do	
		2 masters, pass. strs., minor in- land.	do do				
		4 masters, pass. strs., minor in- land.					
			1 mate, pass. str., minor inland.				

1893.

		2 masters, strs., minor inland.	1 mate, str., minor in- land.			1 master, st. tug, minor inland.	
		1 master, pass. str., minor inland.	1 mate, pass. str., minor inland.				

STATEMENT of Masters and Mates' Certificates of Competency, Coasting, Inland
COMPETENCY,

Place at which examination was held.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Kingston.			3 masters, F. and A., inland.	1 mate, F. and A., inland.	2 masters, pass. str., inland.	
Lunenburg.	2 masters, square rig, coasting.	3 mates, sq're rig, coasting.				
Ottawa.					1 master, pass. str., inland.	
Quebec.		3 mates, sq're rig, coasting.				
Rat Portage.						
Sorel, P. Q.						
Sydney.	3 masters, F. and A., coasting.					
St. Catharines.			9 masters, F. and A., inland.	6 mates, F. and A., inland.	5 masters, freight str., inland.	7 mates, frt. str., inland.
do.				1 mate, sq're rig, inland.	6 masters, pass. str., inland.	6 mates, pass. str., inland.
do.						
St. John.	11 masters, square rig, coasting.	4 mates, sq're rig, coasting.				1 mate, pass. str., inland.
do.	20 masters, F. and A., coasting.	3 mates, F. and A., coasting.				
Toronto.					1 master, pass. str., inland.	2 mates, pass. str., inland.
do.						1 mate, frt. str., inland.
Victoria.	5 masters, pass. str., coasting.	5 mates, sq're rig, coasting.				1 mate, pass. str., inland.
do.	1 master, square rig, coasting.	4 mates, F. and A., coasting.				
do.	1 master, F. and A., coasting.	4 mates, pass. str., coasting.				

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Concluded.*

1893—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		3 masters, pass. strs., minor inland	8 mates, pass. strs., minor inland.				
		9 masters, pass. strs., minor inland	2 mates, pass. strs., minor inland.			2 masters, st. tugs, minor inland.	1 mate, st. tug, minor inland.
		5 masters, pass. strs., minor inland	3 mates, pass. strs., minor inland.	3 masters, F. and A., minor inland.		1 master, st. tug, minor inland.	
		1 master, pass. str., minor inland.	1 mate, pass. str., minor inland.				
		4 masters, pass. strs., minor inland				1 master, st. tug, minor inland.	
		3 masters, pass. strs., minor inland		2 masters, F. and A., minor inland.		do do	
		7 masters, pass. strs., minor inland	1 mate, pass. str., minor inland.			2 masters, st. tugs, minor inland.	
1 master, steam tug, inland.		1 master, frt. str., minor inland.				6 masters, st. tugs, minor inland.	
8 masters, steam tugs, inland.		6 masters, pass. strs., minor inland	2 mates, pass. strs., minor inland.			11 masters, st. tugs, minor inland.	
		1 master, pass. str., minor inland.					
		2 masters, pass. strs., minor inland					

STATEMENT of Masters' and Mates' Certificates of Service, Coasting,
SERVICE,

Place at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Halifax	12 masters, F. and A., coasting.					
St. John, N.B.	17 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
Yarmouth.....	4 masters, F. and A., coasting.	do do				

SERVICE,

Annapolis.....	4 masters, F. and A., coasting.					
do	1 master square rig, coasting.					
Arichat..	8 masters, F. and A., coasting.	5 mates, square rig, coasting.				
do	7 masters, square rig, coasting.					
Beauharnois.....						8 mates, steamers, inland.
Brighton, Ont.			1 master, F. and A., inland.			
Charlottetown.....	1 master, steamer, coasting.	3 mates, steamers, coasting.				
do	4 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
do	1 master, square rig, coasting.	1 mate, square rig, coasting.				
Cobourg.....			3 masters, F. and A., inland.	4 mates, F. and A., inland.		
Collingwood.....			2 masters, F. and A., inland.	4 mates, F. and A., inland.	8 masters, steamers, inland.	4 mates, steamers, inland.
Cornwallis	3 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
Georgeville, Q.. ..						
Goderich			14 masters, F. and A., inland.	5 mates, F. and A., inland.	11 masters, steamers, inland.	1 mate, str., inland.
Halifax.....	121 masters, F. and A., coasting.	7 mates, F. and A., coasting.				1 mate, str., inland.
do	3 masters, steamers, coasting.	1 mate, str., coasting.				
do	19 masters, square rig, coasting.	7 mates, square rig, coasting.				

Marine and Fisheries.

Inland and Minor Inland, issued from 1883 to 1893, both years included.
1883.

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.

1884.

		5 masters, strs., minor inland.	2 mates, strs., minor inland.				
		3 masters, strs., minor inland.	2 mates, strs., minor inland.				
1 master, steam tug, inland.		14 masters, strs., minor inland.	1 mate, str., minor in- land.				
			do do				
		4 masters, strs., minor inland.					
		masters, strs., minor inland.					

STATEMENT of Masters' and Mates' Certificates of Service, Coasting, Inland
SERVICE,

Place at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Kincardine			2 masters, F. and A., inland.			
Kingston	1 master, F. and A., coasting.		58 masters, F. and A., inland.	27 mates, F. and A., inland.	19 masters, steamers, inland.	20 mates, steamers, inland.
Lunenburg	37 masters, F. and A., coasting.	2 mates, F. and A., coasting.				
do	2 masters, square rig, coasting.					
Liverpool	5 masters, F. and A., coasting.					
do	1 master, square rig, coasting.					
Lindsay				1 mate, square rig, inland.		
Montreal					6 masters, steamers, inland.	4 mates, steamers, inland.
New Carlisle	16 masters, F. and A., coasting.	3 mates, square rig, coasting.				
do	1 master, square rig, coasting.					
Owen Sound			3 masters, F. and A., inland.	4 mates, F. and A., inland.	13 masters, steamers, inland.	1 mate, str., inland.
Ottawa			1 master, F. and A., inland.	1 mate, F. and A., inland.	2 masters, steamers, inland.	do do
Parrsboro'	11 masters, F. and A., coasting.	8 mates, F. and A., coasting.				
do	2 masters, square rig, coasting.					
Penetanguishene						
Peterboro'						
Picton, Ont.			26 masters, F. and A., inland.	8 mates, F. and A., inland.	2 masters, steamers, inland.	2 mates, steamers, inland.
Pictou, N.S.	3 masters, F. and A., coasting.					
Prescott						5 mates, steamers, inland.
Port Arthur			3 masters, F. and A., inland.	1 mate, F. and A., inland.	4 masters, steamers, inland.	
Port Colborne			1 master, F. and A., inland.			

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1884—*Continued.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mate.	Masters.	Mates.
3 masters, steam tug, inland.		34 masters, strs., minor inland.	4 mates, strs., minor inland.				
		1 master, str., minor inland					
		60 masters, strs., minor inland.	24 mates, strs., minor inland.	17 masters, F. and A., minor in- land.			
		1 master, str., minor in- land.					
1 master, steam tug, inland.		61 masters, strs., minor inland.	5 mates, strs., minor inland.				
		1 master, str., minor in- land.					
		2 masters, strs., minor inland.	1 mate, str., minor in- land.				
		6 masters, strs., minor inland.	2 mates, strs., minor in- land.				
			1 mate, str., minor in- land.				
			12 mates, strs., minor inland.				
		1 master, str., minor in- land.					

STATEMENT of Masters' and Mates' Certificates of Service, Coasting, Inland
SERVICE,

Place at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Port Dover						
Port Hope			49 masters, F. and A., inland.	26 mates, F. and A., inland.	4 masters, steamers, inland.	
Quebec	22 masters, steamers, coasting.	3 mates, sq're rig, coast- ing.	1 master, F. and A., inland.			
do	67 masters, F. and A., coasting.	9 mates, F. and A., coasting.				
do	10 masters, square rig, coasting.	11 mates, steamers, coasting.				
Rimouski	8 masters, F. and A., coasting.					
Sarnia			20 masters, F. and A., inland.	4 mates, F. and A., inland.	14 masters, steamers, inland.	5 mates, steamers, inland.
Shelburne	2 masters, F. and A., coasting.					
Sorel, P.Q.						
Sydney, C.B.	24 masters, F. and A., coasting.	2 mates, F. and A., coasting.				
do	2 masters, square rig, coasting.					
do	1 master, steamer, coasting.					
St. Catharines ..			58 masters, F. and A., inland.	27 mates, F. and A., inland.	17 masters, steamers, inland.	5 mates, steamers, inland.
do			1 master, square rig, inland.			
St. John	123 masters, F. and A., coasting.	4 mates, F. and A., inland.				
do	9 masters, steamers, coasting.	1 mate, str., coasting.				
do		1 mate, sq're rig, coast- ing.				
Three Rivers	1 master, F. and A., coasting.					
Toronto			67 masters, F. and A., inland.	28 mates, F. and A., inland.	31 masters, steamers, inland.	11 mates, steamers, inland.
do			8 masters, square rig, inland.	1 mate, sq're rig, inland.		
Victoria, B.C.	27 masters, steamers, coasting.	5 mates, steamers, coasting.			5 masters, steamers, inland.	2 mates, steamers, inland.

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*
1884—*Continued.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		1 master, str., minor inland.					
		8 masters, minor inland.					
		45 masters, strs., minor inland.	6 mates, strs., minor inland.	31 masters, F. and A., minor inland.			
		21 masters, strs., minor inland.	4 mates, strs., minor inland.				
		19 masters, strs., minor inland.	3 mates, strs., minor inland.	4 mates, F. and A., minor inland.			
		1 master, str., minor inland.					
17 mates, steam tugs, inland.		27 masters, strs., minor inland.	2 mates, strs., minor inland.				
		27 masters, strs., minor inland.	5 mates, strs., minor inland.				
				21 masters, F. and A., minor inland.		1 master, steam tug, minor inland.	
1 master, steam tug, inland.		40 masters, strs., minor inland.	16 mates, strs., minor inland.			1 master, steam tug, minor inland.	
		2 masters, strs., minor inland.					

STATEMENT of Masters' and Mates' Certificates of Service, Coasting, Inland
SERVICE,

Place at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Victoria, B.C	1 master, F. and A., coasting.					
Weymouth	3 masters, F. and A., coasting.					
Windsor			10 masters, F. and A., inland.	5 mates, F. and A., inland.	9 masters, steamers, inland.	3 mates, steamers, inland.
Yarmouth	17 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
do	6 masters, square rig, coasting.					
do	1 master, steamer, coasting.					
SERVICE						
Arichat	1 master, square rig, coasting.					
do	1 master, F. and A., coasting.					
Antigonish	do do					
Deseronto				1 mate, F. and A., inland.		
Halifax	14 masters, F. and A., coasting.					
do	2 masters, square rig, coasting.					
Kingston			2 masters, F. and A., inland.		1 master, steamer, inland.	
Liverpool	1 master, F. and A., coasting.					
Lunenburg	do do					
Montreal			1 master, F. and A., inland.			1 mate, str., inland.
New Carlisle	1 master, F. and A., coasting.					
Ottawa						1 mate, str., inland.
Owen Sound				1 mate, F. and A., inland.	1 master, steamer, inland.	

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1884—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		21 masters, strs., minor inland.	8 mates, strs., minor inland.				

1885.

		2 masters, strs., minor inland.					
		2 masters, strs., minor inland.					
		1 master, str., minor in- land.	1 mate, str., minor in- land.				
		8 masters, strs., minor inland.	1 mate, str., minor in- land.			1 master, steam tug, minor in- land.	

STATEMENT of Masters' and Mates' Certificates of Service, Coasting, Inland SERVICE,

Place at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Pictou, N.S.						
Port Hope				1 mate, F. and A., inland.		
Port Arthur					1 master, steamer, inland.	
Parrsboro'	1 master, F. and A., coasting.	1 mate, F. and A., coasting.				
do		1 mate, square rig, coasting.				
Parry Sound				1 mate, F. and A., inland.		
Picton, Ont.				do do		
Quebec	1 master, F. and A., coasting.					
Shelburne, N.S.	do do					
Sarnia						1 mate, str., inland.
Sydney, C.B.	1 master, F. and A., coasting.					
St. Catharines	3 masters, F. and A., coasting.	1 mate, F. and A., coasting.	2 masters, F. and A., inland.	6 mates, F. and A., inland.	3 masters, steamer, inland.	
do	1 master, square rig, coasting.			1 mate, square rig, inland.		
St. John, N.B.	15 masters, F. and A., coasting.	1 mate, F. and A., str., coasting.				
do	1 master, steamer, coasting.					
St. Johns, P.Q.						
Toronto	7 masters, F. and A., coasting.			3 mates, F. and A., inland.	7 masters, steamers, inland.	1 mate, str., inland.
West Arichat	1 master, F. and A., coasting.					
Windsor			1 master, F. and A., inland.			1 mate, str., inland.
Victoria	4 masters, steamer, coasting.	2 mates, str., coasting.			1 master, steamer, inland.	
do	2 masters, F. and A., coasting.					

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1885—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
1 master, steam tug, inland.		1 master, str., minor in- land.					
		1 master, str., minor in- land.					
1 master, steam tug, inland.		3 masters, strs., minor inland.	1 mate, str., minor in- land.				
		1 master, str., minor in- land.		4 masters, F. and A., mi- nor inland.		1 master, steam tug, minor in- land.	
		14 masters, strs., minor inland.					
			1 mate, str., minor in- land.				
		1 master, str., minor inland					

STATEMENT of Masters' and Mates' Certificates of Service, Coasting, Inland SERVICE,

Place at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Amherstburg						
Arichat	3 masters, sq. rig, coasting.	1 mate, sq. rig, coasting.				
do		1 mate. F. and A., coasting.				
Belleville			1 master, F. and A., inland.			
Brockville						
Cornwallis	1 master, F. and A., coasting.					
Charlottetown	1 master, steamer, coasting.					
do	1 master, sq. rig, coasting.					
Halifax	1 master, F. and A., coasting.	1 mate, F. and A., coasting.				
Kingston, Ont.			10 masters, F. and A., inland.	5 mates, F. and A., inland.	1 master, str., inland.	1 mate, str., inland.
Lunenburg	1 master, F. and A., coasting.					
Montreal						
Ottawa						
Parrsboro'	1 master, F. and A., coasting.	1 mate, F. and A., coasting.				
do		1 mate, sq. rig, coasting.				
Picton, Ont.						
Port Arthur						
Quebec	2 masters, F. and A., coasting.					
Sarnia					1 master, str., inland.	
St. John	9 masters, F. and A., coasting.	2 mates, F. and A., coasting.				1 mate, str., inland.
St. Catharines				2 mates, F. and A., inland.		

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*
1886.

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
						1 master, st. tug, minor inland.	
		1 master, str., minor inland					
		3 masters, strs., minor inland.					
		5 masters, strs., minor inland.	6 mates, strs., minor in- land.				
		3 masters, strs., minor inland.					
1 master, st. tug, inland.			2 mates, strs., minor inland.				
		3 masters, strs., minor inland.					
						1 master, st. tug, minor inland.	

STATEMENT of Masters' and Mates' Certificates of Service, Coasting, Inland SERVICE,

Port at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Sydney, C.B.	6 masters, F. and A., coasting.					
do	1 master, str., coasting.					
Toronto.....			6 masters, F. and A., inland.		1 master, steamer, inland.	1 mate, str., inland.
Victoria, B.C.....	1 master, F. and A., coasting.	1 mate, str., coasting.	1 master, F. and A., inland.			
Windsor.....					1 master, steamer, inland.	
Yarmouth.....	8 masters, F. and A., coasting.					

SERVICE,

Cobourg.....			2 masters, F. and A., inland.			
Goderich			1 master, F. and A., inland.			
Gravenhurst.....						
Halifax.....	3 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
do		1 mate, square rig, coasting.				
Kingston.....			5 masters, F. and A., inland.	4 mates, F. and A., inland.	2 masters, steamers, inland.	1 mate, str., inland.
Montreal.....						
Ottawa.....						
Picton, Ont.....			1 master, F. and A., inland.			
Farrsboro'.....	2 masters, square rig, coasting.					
do	3 masters, F. and A., coasting.					
Port Arthur						
Quebec.....						

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1886—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		5 masters, str., minor inland.					
		1 master, str., minor inland.					
		do do					

1887.

1] master, steam tug, inland.		1 master, str., minor inland.					
		2 masters, str., minor inland.					
		1 master, str., minor inland.					
1 master, steam tug, inland.		3 masters, 1 mate, str., str., minor in- land.	land.			1 master, steam tug, minor in- land.	
do do							
		1 master, str., minor inland.					

STATEMENT of Masters' and Mates' Certificates of Service, Coasting, Inland SERVICE,

Place at which Examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Sydney	1 master, square rig, coasting.					
Shelburne	2 masters, F. and A., coasting.					
St. John	7 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
do	1 master, steamer, coasting.					
do	1 master, square rig, coasting.					
St. Catharines.....			2 masters, square rig, inland.	3 mates, square rig, inland.	8 masters, steamers, inland.	
do			7 masters, F. and A., inland.	9 mates, F. and A., inland.		
Thorne's Cove.....	1 master, coasting.					
Toronto.....			5 masters, F. and A., inland.	3 mates, F. and A., inland.		2 mates, str., inland.
Victoria.....	1 master, F. and A., coasting.					
do	1 master, steamer, coasting.					
Yarmouth.....	4 masters, F. and A., coasting.					

SERVICE,

Annapolis	1 master, F. and A., coasting.					
Belleville.....						
Georgeville.....					1 master, steamer, inland.	
Halifax.....	9 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
do	2 masters, square rig, coasting.	1 mate, square rig, coasting.				
Kingston			3 masters, F. and A., inland.	1 mate, F. and A., inland.	do	do
Lunenburg.....	3 masters, F. and A., coasting.					
Liverpool.....	1 master, F. and A., coasting.					

Marine and Fisheries

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1887—*Continued.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
3 masters, steam tug, inland.	1 mate, steam tug, inland.	9 masters, strs., minor inland.				1 master, steam tug, minor in- land.	
2 masters, steam tug, inland.		7 masters, strs., minor inland. 2 masters, strs., minor inland.				3 masters, steam tug, minor in- land.	

1888.

		1 master, str., minor in- land.			
			1 mate, str., minor in- land.		

STATEMENT of Masters and Mates' Certificates of Service, Coasting, Inland SERVICE,

Place at which examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Montreal						
Ottawa			4 masters, F. and A., inland.		2 masters, steamers, inland.	
Parrsboro'	2 masters, F. and A., coasting.	2 mates, F. and A., coasting.				
do		2 mates, sq're rig, coasting.				
Port Hope				1 mate, F. and A., inland.		
Quebec	1 master, F. and A., coasting.					
Shelburne	do	do				
St. Catharines			7 masters, F. and A., inland.	3 mates, F. and A., inland.	4 masters, steamers, inland.	2 mates, str., inland.
St. John	9 masters, F. and A., coasting.				1 master, steamer, inland.	
Toronto			5 masters, F. and A., inland.	1 mate, F. and A., inland.	3 masters, steamers, inland.	1 mate, str., inland.
Victoria, B.C.					1 master, steamer, inland.	
Yarmouth	2 masters, F. and A., coasting.					
do	1 master, square rig, coasting.					
Moodyville						

SERVICE,

Barrington	1 master, F. and A., coasting.					
Halifax	2 masters, square rig, coasting.	3 mates, sq're rig, coasting.				
do	11 masters, F. and A., coasting.	3 mates, F. and A., coasting.				
Kentville	2 masters, F. and A., coasting.					
Kingston				5 mates, F. and A., inland.	1 master, steamer, inland.	

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1888—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		5 masters, strs., minor inland.					
			4 mates, strs., minor in- land.				
4 masters, steam tug, inland.		8 masters, strs., minor inland.	2 mates, strs., minor in- land.			6 masters, steam tug, minor in- land.	
			3 mates, strs., minor in- land.			2 masters, steam tug, minor in- land.	
		2 masters, strs., minor inland.					
		1 master, str., minor in- land.					

1889.

		2 masters, strs., minor inland.				2 masters, steam tug, minor in- land.	
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STATEMENT of Masters and Mates' Certificates of Service, Coasting, Inland
SERVICE,

Place at which examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Ottawa.				1 mate F. and A., inland.		
Pictou, Ont.				do do		
Parrsboro'	4 masters, F. and A., coasting.					
Quebec.						
St. John	5 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
St. Catharines			2 masters, F. and A., inland.	5 mates, F. and A., inland.	2 masters, steamers, inland.	1 mate, str., inland.
Toronto.			1 master, F. and A., inland.	do do	1 master, steamer, inland.	
Victoria.					do do	
Yarmouth.	2 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
Kentville	1 master, F. and A., coasting.					
Kingston.		1 mate, F. and A., coasting.	5 masters, F. and A., inland.	5 mates, F. and A., inland.		
Lunenburg	1 master, F. and A., coasting.					
Ottawa					3 masters steamer, inland.	
Pictou, Ont.			1 master, F. and A., inland.			
Parrsboro'	7 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
Pictou, N. S.	1 master, F. and A., coasting.					
Pugwash	1 master, F. and A., coasting.					
Quebec.	1 master F. and A., coasting.					
St. Catharines			3 masters, F. and A., inland.	2 mates, F. and A., inland.	8 masters, steamers, inland.	1 mate, str., inland.
Halifax	12 masters, F. and A., coasting.	2 mates, sq rig, coasting.			3 masters, steamer, inland.	do

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1890—*Continued.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		3 masters, strs., minor inland.				1 master, steam tug, minor in- land.	
		5 masters, strs., minor inland.		1 master, F. and A., minor in- land.			
5 masters, steam tug, inland.		do do				7 masters, steam tug, minor in- land.	3 mates, st'n tug, minor inland.
		1 master, str., minor in- land.				1 master, steam tug, minor in- land.	
		do do	1 mate, str., minor in- land.				
		1 master, str., minor in- land.	1 mate, str., minor in- land.			2 masters, tug, minor inland.	
		2 masters, strs., minor inland.				3 masters, st tugs, minor inland.	

STATEMENT of Masters and Mates' Certificates of Service, Coasting, Inland
SERVICE,

Place at which examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
St. John	4 masters, F. and A., coasting.	1 mate, F. and A., coasting.				
Victoria	2 masters, square rig, coasting.					
Weymouth.	2 masters, F. and A., coasting.					
SERVICE						
Halifax	2 masters, square rig, coasting.	1 mate, square rig, coasting.				
do	6 masters, F. and A., coasting.	2 mates, F. and A., coasting.				
Kingston			2 masters, F. and A., inland.	1 mate, F. and A., inland.	2 masters, steamer, inland.	
Ottawa	1 master, F. and A., coasting.		2 masters, F. and A., inland.		3 masters, steamer, inland.	
Parrsboro'	5 masters, F. and A., coasting.					
Pictou, Ont.					1 master, frt. steamer, inland.	
Pictou, N. S.	2 masters, F. and A., coasting.				1 master, steamer, inland.	
Quebec					2 masters, steamer, inland.	
Shelburne, N. S.			1 master, F. and A., inland.			
St. Catharines			2 masters, F. and A., inland.	3 mates, F. and A., inland.	7 masters, steamers, inland.	
St. John, N.B.	8 masters, F. and A., coasting.					
Toronto						1 mate, str., inland.
Victoria, B.C.	2 masters, steamers, coasting.				1 master, steamer, inland.	
do	1 master, F. and A., coasting.					
Winnipeg					1 master, steamer, inland.	

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1890—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR ISLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		1 master, str., minor inland. do					

1891.

3 masters, st. tug, inland.		1 master, str., minor inland. 3 masters, strs., minor inland.			1 mate, F. and A., m. inland.		
1 master, st. tug, inland.							
do		2 masters, strs., minor inland.				2 masters, st. tugs, minor inland.	

STATEMENT of Masters and Mates' Certificates of Service, Coasting, Inland
SERVICE,

Place at which examination took place.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Barrington.....	1 master, F. and A., coasting.					
Brockville.....				1 mate, F. and A., inland.		
Halifax.....	9 masters, F. and A., coasting.	3 mates, F. and A., coasting.	1 master, F. and A., inland.		1 master, steamer, inland.	
do.....	1 master, square rig, coasting.					
Kingston.....			4 masters, F. and A., inland.	6 mates, F. and A., inland.		
Kentville.....	1 master, F. and A., coasting.					
Lokeport.....	1 master, square rig, coasting.					
Montreal.....						
Ottawa.....			1 master, F. and A., inland.	1 mate, F. and A., inland.	1 master, pass. str., inland.	
Parrsboro'.....	5 masters, F. and A., coasting.	2 mates, F. and A., coasting.				
do.....	1 master, square rig, coasting.	2 mates, square rig, coasting.				
Picton, Ont.....				3 mates, F. and A., inland.		
Pictou, N.S.....	1 master, square rig, coasting.					
Quebec.....	1 master, steam tug, coasting.					
Rat Portage.....						
St. John, N.B.....	1 master, square rig, coasting.			1 mate, F. and A., inland.		
do.....	1 master, F. and A., coasting.	1 mate, F. and A., coasting.				
St. Catharines.....			1 master, F. and A., inland.	2 mates, F. and A., inland.	1 master, steamer, inland.	1 mate, frt. steamer, inland.
Sydney, C.B.....		2 mates, F. and A., coasting.				
Toronto.....				1 mate, F. and A., inland.		do do
Vancouver.....	1 master, F. and A., coasting.					

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1892.

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
1 master, steam tug, inland.							
		1 master, pass. str., minor inland.					
						2 masters, steam tug, minor inland.	
		6 masters, pass. str., minor inland.					
				1 master, F. and A., minor inland.			
						1 master, steam tug, minor inland.	
4 masters, steam tug, inland.	1 mate, stm. tug, inland.	1 master, str., minor inland.				3 masters, steam tug, minor inland.	
1 master, steam tug, inland.		1 master, pass. str., minor inland.				1 master, steam tug, minor inland.	

STATEMENT of Masters and Mates' Certificates of Service, Coasting, Inland
SERVICE,

Place at which examination was passed.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Victoria, B.C.	2 masters, F. and A., coasting.					1 mate, frt. steamer, inland.
do	1 master, pass. str., coasting.	1 mate, pass. steamer, coasting.				
Winnipeg.						
Yarmouth.	1 master, F. and A., coasting.					
SERVICE						
Barrington, N.S.	1 master, F. and A., coasting.					
Brockville.						
Charlottetown.	3 masters, F. and A., coasting.				1 master, pass. str., inland.	
Chatham, N.B.	do do					
Halifax	13 masters, F. and A., coasting.	2 mates, F. and A., coasting.			3 masters, freight str., inland.	
do	1 master, steam tug, coasting.				1 master, pass. str., inland.	
Kingston			1 master, F. and A., inland.	4 mates, F. and A., inland.		
Little Current.					1 master, pass. str., inland.	
Main à Dieu.	1 master, F. and A., coasting.					
Ottawa			1 master, square rig, inland.			
do			3 masters, F. and A., inland.	1 mate, F. and A., inland.		
Parrshoro', N.S.	2 masters, F. and A., coasting.	5 mates, F. and A., coasting.				
do		1 mate, square rig, coasting.				
Pictou, Ont.			1 master, F. and A., inland.	1 mate, F. and A., inland.		
Pictou, N.S.	3 masters, F. and A., coasting.					

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1892—*Concluded.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
		4 masters, pass. str., minor inland.					

1893.

		1 master, pass. str., minor inland.					
		5 masters, str., minor inland.				3 masters, steam tug, minor inl'd.	
1 master, steam tug, inland.		1 master, pass. str., minor inland.					
		1 master, frt. str., minor inland.					
		4 masters, pass. str., minor inl'd.				1 master, steam tug, minor inl'd.	
		2 masters, pass. str., minor inl'd.					

STATEMENT of Masters and Mates' Certificates of Service, Coasting, Inland SERVICE,

Place at which examination took place.	COASTING.		INLAND.		INLAND.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
Pictou, N.S.	1 master, square rig, coasting.	1 mate, square rig, coasting.				
do	1 master, steam tug, coasting.					
Quebec.....	do do					
Sorel, Que..						
Summerside, P.E.I.....	1 master, F. and A., coasting.					
Sydney, N.S.....	1 master, steam tug, coasting.					
St. Catharines.....			1 master, square rig, inland.		1 master, freight str., inland.	1 mate, pass. steamer, inland.
St. John, N.B.	7 masters, F. and A., coasting.	2 mates, F. and A., coasting.				
do	1 master, square rig, coasting.					
do	4 masters, steam tug, coasting.					
Toronto.....						
Victoria.....	1 master, freight str., coasting.					

Marine and Fisheries.

and Minor Inland, issued from 1883 to 1893, both years included—*Continued.*

1893—*Continued.*

INLAND.		MINOR INLAND.		MINOR INLAND.		MINOR INLAND.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
						3 masters, steam tug, minor inl'd.	
		1 master, pass. str., minor inland.					
1 master, steam tug, inland.		do do				1 master, steam tug, minor inl'd.	
		1 master, str., minor in- land.					
						4 masters, steam tug, minor inl'd.	
		1 master, pass. str., minor inland.					

STATEMENT of Masters and Mates' Certificates of Competency and Service, Coasting,
 RECAPITULATION

YEAR.	FORE AND AFT AND SQUARE RIGGED SAILING VESSELS.		FORE AND AFT SAILING VESSELS.		STEAMERS.	
	Coasting.		Inland.		Inland.	
	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
1883-84	35	1	10	1	25	5
1885	7	2	10	1	21	8
1886	23	5	7	1	8	6
1887	22	.....	9	4	14	8
1888	21	1	14	3	17	7
1889	28	3	8	14	20	13
1890	41	5	13	8	34	15
1891	34	17	13	10	61	31
1892	42	21	6	5	18	13
1893	51	27	12	8	15	18
Total	304	82	102	55	233	124

RECAPITULATION

1883	33	2	.....	.....	.....	.....
1884	575	76	328	146	145	73
1885	60	6	6	15	14	5
1886	36	8	18	7	4	3
1887	27	3	23	19	10	3
1888	32	6	19	6	13	3
1889	27	8	3	17	5	1
1890	32	5	9	7	14	2
1891	27	3	7	4	18	1
1892	28	11	7	15	3	3
1893	45	11	7	6	7	1
Total	922	139	427	242	233	95

TOT

Service.....	922	139	427	242	233	95
Competency.....	304	82	102	55	233	124
Grand total.....	1,226	221	529	297	466	219

Marine and Fisheries.

Inland and Minor Inland, issued from 1883 to 1893, both years included—*Concluded.*
—COMPETENCY.

STEAM TUGS.		STEAMERS.		FORE AND AFT SAILING VESSELS.		STEAM TUGS.	
Inland.		Minor Inland.		Minor Inland.		Minor Inland.	
Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	Masters.	Mates.
1		5	3				
		6	3			1	
		3	3			6	
2		9	2			2	
2		12	11			5	
2		16	10				
5		8	6			4	2
3		10	2			8	
5	1	26	16	1		25	1
9		45	19	5			
29	1	140	72	6		51	3

—SERVICE.

25		417	99	73		2	
2		34	4	4		2	
1		22	8			1	
8	1	26	1			5	
4		17	10			8	
5		17	1	1		11	3
		5	1			5	
5		6		1		2	
6	1	13		1		7	
2		18				12	
58	2	575	124	80		55	3

ALS.

58	2	575	124	80		55	3
29	1	140	72	6		51	3
87	3	715	296	86		106	6

SERVICE

STATEMENT showing the number and Grade of Service Certificates which have been
1872 to 1889, after

Name of Port.	1872.		1873.		1874.		1875.		1876.	
	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.
Annapolis.....										
Charlottetown.....					1				3	1
Cheverie.....					1					
Halifax.....	204	52	161	56	122	47	62	31	31	14
Liverpool.....		1								
Lunenburg.....										
Montreal.....						1				
New Carlisle.....										
Ottawa.....					1	1				
Parrsboro'.....	1									
Port Medway.....										
Quebec.....	21	3	4				1	2	4	
Sydney.....										
Shelburne.....										
St. John.....	49	16	67	29	27	13	21	8	11	4
Thorne's Cove.....										
Victoria.....										
Vancouver.....										
Yarmouth.....										

Name of Port.	1883.		1884.		1885.		1886.		1887.	
	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.
Annapolis.....										
Charlottetown.....			1				1			
Cheverie.....										
Halifax.....	7	1	56	35	16	15	2		1	1
Liverpool.....				1		4			1	2
Lunenburg.....			6	10		4	1	3		
Montreal.....										
New Carlisle.....			1							
Ottawa.....										
Parrsboro'.....										
Port Medway.....						1				
Quebec.....										
Sydney.....										
Shelburne.....			1		3	3				
St. John.....	2		6	1		1		1	1	
Thorne's Cove.....										1
Victoria.....										
Vancouver.....										
Yarmouth.....			4	6	4	3	3	1	1	

Marine and Fisheries.

SEA-GOING.

granted each year at each Port to Masters and Mates of Foreign Sea-going ships, from which none were granted.

1877.		1878.		1879.		1880.		1881.		1882.	
Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.
		1	2					1	1		
11	6	7	2	5	3	21	6	4	4	4	
1				1							
2						5	1				
8	2	1	4	2	1	4			1	3	2
						1					
1888.		1889.		1890.		1891.		1892.		1893.	
Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.	Master.	Mate.
	1										
16	10	3	4								
	1		1								
	1									1	
1											
1											
1											
	1							1			

TOTAL Number of Service Certificates, Foreign Seagoing, issued from 1872 to 1893, both years included.

	Masters.	Mates.
Annapolis		2
Charlottetown	7	4
Cheverie	1	
Halifax	733	237
Liverpool	1	8
Lunenburg	7	19
Montreal		1
New Carlisle	1	
Ottawa	4	2
Parrsborough	1	
Port Medway		1
Quebec	35	8
Sydney	1	
Shelburne	5	3
St. John	202	84
Thorne's Cove		1
Victoria, B. C.	1	
Vancouver	1	
Yarmouth	13	11
	1,013	431

SICK AND DISTRESSED MARINERS.

Under the provisions of Chap. 76, Revised Statutes, a duty of two cents per ton register is levied on every vessel arriving in any port in the province of Quebec, Nova Scotia, New Brunswick, Prince Edward Island and British Columbia, the money thus collected forming "The Sick Mariners' Fund." Vessels of the burden of 100 tons and less, pay the duty once in each calendar year, and vessels of more than 100 tons three times in each year.

By an amendment to this Act passed at the session of Parliament in 1886, 50-51 Vic., chap. 40, it is provided that no vessel which is not registered in Canada and which is employed exclusively in fishing or on a fishing voyage, shall be subject to the payment of this duty.

The receipts for the fiscal year ended 30th June last amounted to \$46,190.64, being an increase of \$808.77 as compared with the preceding year. The increase, or decrease in receipts of sick mariners' dues in the various provinces was as follows:—Quebec, decrease \$531.76; Nova Scotia, increase \$157.62; New Brunswick, increase \$494.79; Prince Edward Island, increase \$8.76; British Columbia, increase \$679.36.

The Sick Mariners Act does not apply to the province of Ontario and consequently no dues are collected from vessels in that province, although a small expenditure is incurred on account of sick seamen. For a number of years past a vote of \$500 has been made by Parliament to the General Hospital at Kingston and a similar amount to the General Hospital at St. Catharines for the care of such seamen as may receive medical attendance in them. During the fiscal year ended 30th June sick seamen were paid for at a per diem rate of 90 cents. The amount paid to St. Catharines Hospital was \$313.20 for attendance on 7 sick seamen, 348 days. The sum of \$391.50 was paid the Kingston Hospital for attendance on 8 sick seamen, 435 days.

Marine and Fisheries

In the province of Quebec the expenditure on account of sick seamen amounted to \$6,629.43, being \$628.56 less than the previous year. The total collections for the entire province amounted to \$14,128.43, being \$531.70 less than the previous year.

At the port of Montreal sick seamen are cared for at the General Hospital and at Notre-Dame Hospital under an arrangement made by the department by which 90 cents per diem is paid for board and medical attendance of each seamen. The number of seamen admitted to the Montreal General Hospital was 67, and the number of days during which they received treatment and board was 1,004; whilst 134 outside patients were treated. The total cost being \$1,055.60. The amount paid the Notre-Dame Hospital was \$1,317.60 for the treatment of 145 sick seamen for a total number of 1,464 days.

Chicoutimi Hospital received 7 seamen to whom medical treatment and board were given, at a cost of \$426.10. The sick mariners' dues collected at the port of Montreal during the fiscal year ended 30th June, amounted to \$4,582.94.

At the port of Quebec sick seamen were cared for at the Jeffrey Hale and the Hôtel-Dieu Hospitals, the sum of 90 cents for each seaman is allowed in return for medical attendance and board. The sum paid the Jeffrey Hale Hospital was \$2,099.70, where 197 men received treatment for a total number of 2,186 days. The sum of \$421.10 was paid the Hôtel-Dieu Hospital for attendance to 21 seamen 459 days. The sick mariners' dues collected at Quebec amounted to \$7,347.42.

The expenditure on account of sick seamen in the province of New Brunswick for the fiscal year amounted to \$8,636.40, being \$2,614.63 more than the preceding year, and the collection of dues to \$8,993.62, or \$494.79 less than the previous year. Marine hospitals have been maintained at Miramichi, Richibucto and Bathurst.

The Marine Hospital at St. John has been closed as a more economical and satisfactory arrangement for the treatment of sick seamen has been made with the St. John General Public Hospital. In the Marine Hospital the average cost per man for the year 1890-91 was about \$1.08 per day, to the Marine and Fisheries Department. In addition to the expenditure on account of medical attendance and board a sum was annually expended by the Public Works Department for repairs, heating, lighting and water; averaging about \$1,100. The average yearly expenditure by both departments amounted to about \$4,700. It was found by a carefully prepared estimate that a sum not less than \$4,000 was necessary to put the building and surroundings in repair.

The department, in view of this, entered into an arrangement with the authorities of the St. John General Public Hospital to have the sick seamen in the Marine Hospital transferred to the Public Hospital on the 1st of February, 1893. The Commissioners of the General Public Hospital agreed to take care of sick seamen entitled to medical attendance and board for the sum of 90 cents per day, the same as is paid for seamen in public hospitals in Montreal, Halifax, Quebec and Charlottetown.

Gratuities were paid the medical attendant and chaplain and a year's salary to the keeper of the hospital. The latter has been allowed to remain in the building without any further allowance than fuel sufficient to heat a certain portion of the building.

Negotiations are now going on in connection with leasing the property.

At St. John, 41 seamen received treatment, 818 days, at a cost of \$826.20.

At Miramichi, 42 seamen were admitted and received treatment, 933 days, at a cost of \$1,115.47.

At Richibucto, 5 seamen were admitted and received treatment for 104 days. The cost of maintaining the hospital was \$442.30.

At Bathurst, 11 seamen were in hospital 502 days. The cost of maintaining the hospital during the year was \$613.88.

The St. Andrew's Hospital is in charge of the matron, who is allowed to charge \$3.00 per week for boarding sick seamen. No salaries are paid in connection with the maintenance of the hospital.

The Sackville Hospital has been leased to Mr. Bradford Carter for three years from 1892, at a nominal rental. The terms of the lease require Mr. Carter to keep the buildings in repair, and if the department should require the hospital at any time, it is to be handed over on notice being given.

In the province of Nova Scotia, marine hospitals are maintained at the ports of Yarmouth, Pictou, Sydney, Lunenburg and Point Tupper. The total expenditure on account of sick seamen in the province of Nova Scotia for the fiscal year amounted to \$12,102.28, and the receipts to \$15,454.60.

The Marine Hospital at Yarmouth, is located at Bunker's Island; 75 seamen were admitted during the year ended 30th of June, who were treated 1,400 days. The expenditure for this purpose being \$1,047.19.

At Halifax provision is made for the care of sick seamen at the Victoria General Hospital under arrangements made with the managers, by which the sum of 90 cents per diem is allowed for board and medical attendance to sick seamen. The sum paid the managers of the hospital for board and medical treatment during the past fiscal year was \$3,403.50; 222 men were admitted, and the number of days for which treatment is charged is 3,748.

At Lunenburg, 16 seamen were admitted and received medical treatment 325 days; the cost of maintaining the hospital being \$589.30.

At Pictou, 23 seamen were admitted to the hospital, their total treatment being for 507 days; the sum paid in connection with maintaining the hospital was \$963.70.

At Sydney, 45 seamen received medical treatment, the total number of days being 473, and the amount expended in maintaining the hospital was \$870.46.

At Point Tupper, 17 seamen were admitted to the hospital, the total number of days for which they received treatment being 146, and the amount expended in connection with keeping the hospital was \$373.93.

In the province of Prince Edward Island the amount expended on account of sick and disabled seamen during the fiscal year was \$2,018.41; and the receipts from sick mariners' dues were \$483.94.

Six seamen are cared for at the Charlottetown and Prince Edward Island Hospitals under arrangements made with the managers of these institutions at the same rate as is paid to the public hospitals in other parts of the Dominion.

The Prince Edward Island hospital admitted 7 sick seamen, giving them treatment for 176 days; the amount paid was \$158.40.

At the Charlottetown Hospital 32 men received medical treatment for a total number of 1,074 days. The sum of \$966.60 was paid to the managers for the fiscal year ended 30th June.

Marine and Fisheries.

There is a marine hospital building at Souris, P.E.I., the property of the Government. The building is a substantial wooden building, but requires a good stone foundation. Temporary repairs were made to the foundation, costing the sum of \$250, in order to prepare it for renting. Tenders were invited in November, 1891, for the purchase of the property, as the Government had decided the Marine Hospital at Souris was not necessary. One tender only was received, but the offer was so low that the department did not deem it in the public interest to accept the tender.

In the province of British Columbia the sum of \$3,509.01 was expended for sick and disabled seamen, while the receipts from the collection of sick mariners' dues amounted to \$7,130.10.

The Marine Hospital at Victoria has in attendance a medical superintendent with a salary of \$300 per annum, a keeper whose salary is \$500 per annum; he is also allowed a rate of \$5 per week for board and attendance of each seamen. The keeper procures fuel, lights, bedding, etc., at his own expense. The number of seamen admitted to the hospital for the past year was 126, the total number of days during which they received treatment was 2,023, and the sum expended was \$2,289.26.

At ports where no hospitals are established, in the province of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, sick seamen are cared for under the direction of the chief officer of customs when the vessels to which the seamen belong have paid dues, according to law. A circular to collectors of customs was issued 7th of February, 1891, permitting sick seamen to be attended at the port of arrival of a vessel, provided that the regular dues were previously paid at some port.

During the fiscal year the sum of \$2,137.52 was expended for shipwrecked and destitute seamen, under the provisions of the Sick and Distressed Mariners' Act. Of this sum \$725.79 were paid to Her Majesty's Imperial Government to reimburse expenses incurred in caring for shipwrecked and distressed Canadian seamen in foreign ports.

The total expenditure by this department on account of sick and disabled seamen, and distressed and shipwrecked seamen amounted to \$35,052.37, and the appropriation by Parliament for this service was \$34,000. The dues collected amounted to \$46,190.69. It will be seen that the receipts exceeded the expenditure \$11,142.28.

The receipts and expenditure in connection with this service during the preceding 25 fiscal years were as follows:—

	Receipts.		Expenditure.	
	\$	cts.	\$	cts.
For the fiscal year ended 30th June, 1869.	31,353	78	26,987	64
do do 1870.	31,410	46	27,029	34
do do 1871.	29,683	41	28,971	22
do do 1872.	34,911	64	34,947	60
do do 1873.	37,136	10	41,016	43
do do 1874.	41,500	16	59,778	90
do do 1875.	37,801	46	50,684	76
do do 1876.	41,287	66	48,828	49
do do 1877.	43,739	21	51,647	94
do do 1878.	44,665	07	43,780	90
do do 1879.	37,779	57	42,729	36
do do 1880.	42,523	20	42,160	91
do do 1881.	49,779	72	40,667	52
do do 1882.	45,951	47	39,359	11
do do 1883.	45,573	42	36,249	65
do do 1884.	48,667	07	39,553	58
do do 1885.	39,068	39	44,501	57
do do 1886.	40,848	05	50,377	62
do do 1887.	42,334	92	37,447	35
do do 1888.	41,669	64	36,447	85
do do 1889.	39,306	29	41,320	59
do do 1890.	47,881	75	41,729	11
do do 1891.	43,829	68	35,155	12
do do 1892.	45,381	92	33,498	83
do do 1893.	46,190	69	35,052	37
Total	1,030,274	73	1,012,930	46
Deduct expenditure from receipts	1,012,930	46		
Excess of receipts over expenditure	17,344	27		

ICE BOAT MAIL SERVICE.

This service began on the 3rd of February, 1893, and continued up to the 10th April.

Three boats with their crews, numbering 15 in all, were found necessary to convey the mail matter across the Straits of Northumberland.

During the time in which the boats were engaged in the service 3,241 bags of mails, 1,157 pounds of baggage and 160 passengers were carried. The receipts, exclusive of the mail service, were \$414.71, and the cost of maintenance \$4,289.90.

Full details of the working of the ice boats were given in the twenty-fourth Annual Report.

A new boathouse has been built at Cape Tormentine for the accommodation of the ice-boats and a life-boat. Tenders were invited by public notice, and the tender of Messrs. Rhodes, Curry & Co., of Amherst, N.S., for \$1,890, being the lowest was accepted. It was found necessary to make excavations in connection with the roadway, and to give sufficient space between the bank and the building for drainage purposes. The total cost of the land, building, excavations and inspection was the sum of \$2,245.10.

MERCHANT SHIPPING

The total number of vessels remaining on the register books of the Dominion on the 31st December, 1893, including old and new vessels, sailing vessels, steamers and barges, was 7,113, measuring 912,539 tons register tonnage, being an increase of

Marine and Fisheries.

106 vessels and a decrease of 51,590 tons register, as compared with 1892. The number of steamers on the registry books on the same date was 1,538, with a gross tonnage of 241,772 tons. Assuming the average value to be \$30 per ton, the value of the registered tonnage of Canada, on the 31st December last, would be \$27,376,170.

The number of new vessels built and registered in the Dominion of Canada during the last year was 362, measuring 28,440 tons register tonnage. Estimating the value of the new tonnage at \$45 per ton, it gives a total value \$1,279,800 for new vessels.

A statement follows, showing the number of vessels and number of tons on the register books at the different ports of registry in the Dominion, on the 31st December last, along with a comparative statement of the tonnage from 1873 to 1893. A statement is also published of the number of vessels built and registered in the Dominion during the last year, and a comparative statement of the number of new vessels built and registered from 1874 to 1893, both inclusive.

STATEMENT showing the number of Vessels and number of Tons on the Registry Books of the Dominion of Canada, on the 31st December, 1893.

PROVINCE OF NEW BRUNSWICK.

Name of Port.	Total Number of Sailing Ships and Steamers.	Number of Steamers.	Gross Tonnage of Steamers.	Total Net Tonnage of Sailing Ships and Steamers.
Chatham	294	30	1,416	9,757
Dorchester	9			4,921
Moncton	16	1	3	2,700
Richibucto	17	3	129	2,047
Sackville	12	2	41	1,266
St. Andrew's	140	5	109	3,486
St. John	522	62	7,107	131,909
Total	1,010	103	8,805	156,086

PROVINCE OF NOVA SCOTIA.

Amherst	8			906
Annapolis	60	3	85	7,268
Arichat	121	1	66	5,035
Barrington	51	1	15	1,998
Canso	3			179
Digby	177	5	245	11,403
Guysborough	38			1,889
Halifax	799	53	10,760	46,659
Liverpool	81	3	156	7,301
Lunenburg	334	5	347	29,284
Maitland	30			28,670
Pugwash	8			634
Parrsboro'	129	2	201	31,399
Pictou	65	15	1,073	15,247
Port Hawkesbury	67	2	43	2,536
Port Medway	23	1	45	1,879
Sydney	117	8	635	5,037
Shelburne	99	1	38	6,925
Truro	4			1,441
Windsor	181	11	2,408	118,005
Weymouth	39	1	154	3,814
Yarmouth	281	14	4,418	68,754
Total	2,715	126	20,689	396,263

STATEMENT showing the number of Vessels and number of Tons on the Registry
Books of the Dominion of Canada, on the 31st December, 1893.

PROVINCE OF QUEBEC.

Name of Port.	Total Number of Sailing Ships and Steamers.	Number of Steamers.	Gross Tonnage of Steamers.	Total. Net Tonnage of Sailing Ships and Steamers.
Amherst, M.I.	22			826
Gaspé	37	1	709	2,289
Montreal	479	155	54,695	82,352
New Carlisle	16	3	49	769
Perce				
Quebec	872	123	20,636	74,885
Total	1,426	282	76,089	161,121

PROVINCE OF ONTARIO.

Amherstburg	3			148
Belleville	14	8	495	811
Brockville	25	23	318	376
Bowmanville	4			752
Collingwood	53	51	5,798	4,328
Chippewa	3	3	263	153
Cramahé	2			278
Chatham	28	17	1,121	1,677
Cobourg	6	2	51	474
Cornwall	3	2	181	214
Dunville	9	5	637	1,027
Deseronto	9	6	837	1,175
Goderich	43	24	696	2,012
Hamilton	47	34	8,341	7,180
Kingston	194	68	8,843	28,799
Napanee	6	2	295	721
Owen Sound	33	30	4,941	3,721
Ottawa	171	91	12,455	23,217
Oakville	6			513
Prescott	29	15	860	3,906
Port Burwell	15	7	175	1,158
Port Arthur	9	9	3,170	2,052
Port Dover	19	6	169	1,139
Port Colborne	7	2	95	616
Port Hope	64	38	3,297	6,152
Port Rowan	7	1	168	880
Port Stanley	11	9	1,257	1,103
Picton	32	11	1,355	3,328
Sarnia	54	20	8,364	6,743
Sault Ste. Marie	14	11	477	528
St. Catharines	121	55	8,866	19,091
Saugeen	8	8	383	264
Toronto	230	157	16,688	17,173
Wallaceburg	35	20	1,342	2,337
Windsor	53	27	5,842	5,104
Whity	3			515
Total	1,370	762	97,785	146,665

Marine and Fisheries.

STATEMENT showing the number of Vessels and number of Tons on the Registry Books of the Dominion of Canada, on the 31st December, 1893.

PROVINCE OF PRINCE EDWARD ISLAND.

Name of Port.	Total Number of Sailing Ships and Steamers.	Number of Steamers.	Gross Tonnage of Steamers.	Total Net Tonnage of Sailing Ships and Steamers.
Charlottetown.....	188	24	6,056	20,970

PROVINCE OF MANITOBA.

Winnipeg	89	58	6,196	6,534
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PROVINCE OF BRITISH COLUMBIA.

Victoria	207	95	15,980	16,756
New Westminster	69	57	7,498	6,314
Vancouver	39	31	2,074	1,830
Total	315	183	25,552	24,900

SUMMARY.

New Brunswick.....	1,010	103	8,805	156,086
Nova Scotia.....	2,715	126	20,689	396,263
Quebec	1,426	282	76,089	161,121
Ontario	1,370	762	97,785	146,665
Prince Edward Island	188	24	6,056	20,970
Manitoba	89	58	6,196	6,534
British Columbia	315	183	25,552	24,900
Total	7,113	1,538	241,172	912,539

COMPARATIVE STATEMENT showing the Number of Vessels and Number of Tons on from 1873 to

Provinces.	1873.		1874.		1875.		1876.		1877.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
New Brunswick.....	1,147	277,850	1,144	294,741	1,133	307,926	1,154	324,513	1,133	329,457
Nova Scotia.....	2,803	449,701	2,787	479,669	2,786	505,144	2,867	529,252	2,961	541,579
Quebec.....	1,842	214,083	1,837	218,946	1,831	222,965	1,902	228,502	1,951	248,399
Ontario.....	681	89,111	815	113,008	825	114,990	889	123,947	926	131,761
P. E. Island.....	280	38,918	312	48,388	335	50,677	338	50,692	342	55,547
British Columbia....	30	4,095	35	3,611	40	3,685	40	3,809	43	3,479
Manitoba.....					2	178	2	178	6	246
Total.....	6,783	1,073,718	6,930	1,158,363	6,952	1,205,565	7,192	1,260,893	7,362	1,310,468

	1884.		1885.		1886.		1887.	
New Brunswick.....	1,096	308,132	1,060	288,589	1,042	269,224	1,027	255,126
Nova Scotia.....	2,942	544,048	2,988	541,832	2,929	526,921	2,845	498,878
Quebec.....	1,628	202,842	1,631	203,635	1,650	232,556	1,586	189,064
Ontario.....	1,184	142,387	1,223	144,487	1,248	140,929	1,275	139,548
P. E. Island.....	234	39,213	227	36,040	225	30,658	225	29,031
British Columbia....	116	11,403	123	11,834	134	11,900	149	12,789
Manitoba.....	55	5,722	63	5,439	65	5,578	71	5,811
Total.....	7,254	1,253,747	7,315	1,231,856	7,294	1,217,766	7,178	1,130,247

Marine and Fisheries.

the Registry Books of the Dominion of Canada, on the 31st December, in each Year, 1893, both inclusive.

1878.		1879.		1880.		1881.		1882.		1883.	
Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1,142	335,965	1,135	340,491	1,097	536,976	1,087	333,215	1,065	308,980	1,107	315,906
3,003	553,368	2,975	552,159	2,977	550,448	3,025	558,911	3,026	546,778	3,037	541,715
1,676	248,349	1,975	246,025	1,889	233,341	1,830	224,936	1,754	215,804	1,739	216,577
958	135,440	1,006	136,987	1,042	137,481	1,081	139,998	1,112	137,061	1,133	140,972
322	54,250	298	49,807	288	45,931	273	45,410	248	41,684	241	49,446
51	4,482	60	4,701	63	5,049	74	6,296	84	7,687	94	9,046
17	1,161	22	1,924	21	1,992	24	2,130	23	2,783	24	2,778
7,469	1,333,015	7,471	1,332,094	7,377	1,311,218	7,394	1,310,896	7,312	1,260,777	7,374	1,276,440
1888.		1889.		1890.		1891.		1892.		1893.	
1,009	239,332	1,013	218,873	981	209,460	969	193,193	946	181,779	1,010	156,086
2,851	485,709	2,855	464,431	2,793	464,194	2,778	461,758	2,731	425,690	2,715	396,263
1,498	178,520	1,455	168,500	1,399	164,003	1,404	162,330	1,408	162,638	1,423	161,121
1,330	139,502	1,352	141,839	1,312	138,738	1,345	138,914	1,347	141,750	1,370	146,665
218	26,586	224	25,506	231	26,080	195	23,316	196	22,706	188	20,970
167	14,249	176	15,241	196	16,024	246	19,767	298	23,448	315	24,900
69	5,745	77	6,091	79	6,475	78	6,197	81	6,118	89	6,534
7,142	1,089,642	7,153	1,040,481	6,991	1,024,974	7,015	1,005,475	7,007	964,129	7,113	912,539

LIST of Ports at which Vessels may be Registered, showing the Number of New Vessels Built and Registered, in 1893.

PROVINCE OF NEW BRUNSWICK.

Name of Port.	Total Number of Sailing Ships and Steamers.	Number of Steamers.	Gross Tonnage of Steamers.	Total Net Tonnage of Sailing Ships and Steamers.
Chatham	103			1,149
Dorchester	1			697
Moncton				
Richibucto				
Sackville	2			150
St. Andrew's				
St. John	13			823
Total	119			2,819

PROVINCE OF NOVA SCOTIA.

Amherst				
Annapolis				
Arichat	3			66
Barrington	2			80
Canso	1			41
Digby	3			76
Guysborough				
Halifax	11			484
Liverpool	9			858
Lunenburg	28			2,643
Maitland	2			2,487
Parrsborough	15			3,750
Pictou	2			269
Port Hawkesbury	4			83
Port Medway	2			354
Pugwash				
Shelburne	9			341
Sydney	3			104
Truro				
Weymouth	1			31
Windsor	8			2,553
Yarmouth	8			869
Total	111			15,089

PROVINCE OF QUEBEC.

Amherst, M. I.				
Gaspé				
Montreal	22			2,752
New Carlisle				
Perce				
Quebec	31			1,468
Total	53			4,220

Marine and Fisheries.

LIST of Ports at which Vessels may be Registered, showing the Number of New Vessels Built and Registered, in 1893—*Continued.*

PROVINCE OF ONTARIO.

Name of Port.	Total Number of Sailing Ships and Steamers.	Number of Steamers.	Gross Tonnage of Steamers.	Total Net Tonnage of Sailing Ships and Steamers.
Amherstburg				
Belleville				
Bowmanville				
Brockville				
Chatham	1			14
Chippewa				
Cobourg				
Collingwood	4			109
Cornwall				
Cramahe				
Deseronto				
Dunville				
Goderich	2			29
Hamilton	2			64
Kingston	5			1,020
Oakville				
Ottawa	13			611
Owen Sound	2			897
Pictou	1			59
Port Arthur	1			29
Port Burwell	1			3
Port Colborne				
Port Dover				
Port Hope				
Port Rowan				
Port Stanley				
Prescott				
Sarnia	1			24
Saugeen				
Sault Ste. Marie	2			21
St. Catharines	2			18
Toronto	8			1,118
Wallaceburg	2			110
Whitby				
Windsor	2			
Total	49			4,126

PROVINCE OF PRINCE EDWARD ISLAND.

Charlottetown	3			634
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PROVINCE OF MANITOBA.

Winnipeg	8			608
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PROVINCE OF BRITISH COLUMBIA.

Victoria	10			358
New Westminster	3			189
Vancouver	6			397
Total	19			944

LIST of Ports at which Vessels may be Registered, showing the number of New
Vessels Built and Registered in 1893—*Concluded.*

SUMMARY.

Name of Port.	Total Number of Sailing Ships and Steamers.	Number of Steamers.	Gross Tonnage of Steamers.	Total Net Tonnage of Sailing Ships and Steamers.
New Brunswick.....	119	.....	.....	2,819
Nova Scotia.....	111	.....	.....	15,089
Quebec.....	53	.....	.....	4,220
Ontario.....	49	.....	.....	4,126
Prince Edward Island.....	3	.....	.....	634
Manitoba.....	8	.....	.....	608
British Columbia.....	19	.....	.....	944
Total.....	362	.....	.....	28,440

Marine and Fisheries.

COMPARATIVE STATEMENT of New Vessels Built and Registered in the Dominion of Canada during the Year ended 31st December, in each year from 1874 to 1893, both inclusive.

Provinces.	1874.		1875.		1876.		1877.		1878.		1879.		1880.		1881.		1882.		1883.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
New Brunswick	90	42,027	65	33,483	61	31,040	54	31,158	56	27,368	43	19,067	63	18,896	57	18,250	66	16,820	72	21,103
Nova Scotia	175	84,480	177	67,106	194	58,771	219	47,960	166	49,784	126	39,208	126	31,257	150	40,465	117	26,711	202	35,765
Quebec	73	20,796	103	23,825	51	17,800	62	19,253	46	10,870	29	7,421	33	8,219	56	5,673	26	6,785	42	6,594
Ontario	50	10,797	53	7,760	47	5,397	28	3,316	30	2,409	42	2,464	44	3,610	54	5,111	55	4,369	34	4,311
Prince Edward Island.	88	24,634	83	19,838	62	14,571	62	17,026	3	10,382	20	5,279	21	3,359	15	4,351	15	3,508	17	5,343
British Columbia	5	276	.....	.....	1	121	2	204	2	45	6	788	1	100	2	85	8	1,631	5	849
Manitoba.	.....	.....	.....	.....	.....	.....	3	48	1	15	.....	.....	.....	.....	1	116	1	289	2	125
Add new vessels built in Canada which proceeded to the United Kingdom under a Governor's pass without being registered.....	490	183,010	480	151,012	416	127,700	430	118,985	339	100,873	265	74,227	271	65,441	336	74,060	288	60,113	374	74,090
Add new vessels which left Quebec for registration in Germany.....	6	7,746	.....	.....	3	2,721	2	1,943	1	663	.....	.....	.....	.....	.....	.....	1	1,029	.....	.....
Total	496	190,756	480	151,012	420	130,901	432	120,928	340	101,536	265	74,227	271	65,441	336	74,060	289	61,142	374	74,090
New Brunswick	46	12,888	34	7,736	54	4,931	18	2,909	32	2,530	50	4,792	35	5,572	43	6,269	21	1,873	119	2,819
Nova Scotia	178	42,032	102	24,703	93	20,948	87	12,310	116	12,965	126	10,645	150	33,907	130	35,528	105	16,446	111	15,089
Quebec	32	3,815	29	4,556	27	2,683	28	2,888	23	2,669	27	3,759	25	4,880	46	4,200	34	2,620	53	4,220
Ontario	58	4,446	45	4,509	52	2,075	66	2,993	62	5,095	45	4,917	44	4,917	44	2,662	34	3,084	49	4,126
Prince Edward Island.	21	5,189	11	1,707	12	1,318	7	691	12	1,412	12	1,503	12	2,008	5	1,000	9	967	3	634
British Columbia	15	675	6	648	8	154	9	376	18	448	12	840	15	876	41	2,364	46	2,887	19	944
Manitoba.	37	3,366	13	320	3	98	8	439	1	11	8	548	7	218	3	122	6	296	8	608
Add new vessels built in Canada which proceeded to the United Kingdom under a Governor's pass without being registered.....	387	72,411	240	43,179	229	32,207	224	22,516	264	25,130	280	34,346	285	52,378	312	52,145	255	28,773	362	28,440
Add new vessels which left Quebec for registration in Germany.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	387	72,411	240	43,179	229	32,207	224	22,516	264	25,130	280	34,346	285	52,378	312	52,145	255	28,773	362	28,440

GEORGIAN BAY SURVEY.

The report of the Chief Engineer which forms an appendix to this report, contains information relating to the hydrographic surveys in progress under the direction of the department. The report of Mr. W. J. Stewart, who is in charge of the Georgian Bay survey, was made to the Chief Engineer and forms a part of his report. It will be seen that the officers and crew began their work in the "Bayfield" on the 4th of May and were engaged until the 12th of September. The sum of \$18,000 was voted for this service last session. The expenditure for the past fiscal year amounted to \$17,542.11, being \$1,091.01 more than the previous year.

The yearly expenditure on account of the Georgian Bay survey has been as follows:—

Year.	Amount.
1882-83	\$ 77 81
1883-84	26,745 54
1884-85	20,454 68
1885-86	17,759 36
1886-87	21,592 55
1887-88	19,468 13
1888-89	17,808 46
1889-90	17,969 23
1890-91	17,677 51
1891-92	16,451 10
1892-93	17,542 11
	\$193,546 48

LONGITUDE OF MONTREAL.

By reference to the report of last year it will be seen that arrangements were made for determining the exact longitude of Montreal. The question is one of importance and is necessary for the construction of reliable hydrographic and other charts. The report of Professor C. H. McLeod, Superintendent of McGill College Observatory, published as Appendix No. 16, page 122, to the report of last year, contains information respecting the observations in connection with the work.

The following letter from Professor McLeod furnishes information as to the present stage of the work. The final reductions are being pushed with all possible haste both at Greenwich and in Canada.

" MCGILL COLLEGE OBSERVATORY,

" MONTREAL, 30th October, 1893.

" The Honourable

" Sir CHARLES HIBBERT TUPPER,

" Minister of Marine and Fisheries, Ottawa.

" SIR,—Replying to your request, I have the honour to report that all my observations in connection with the determination of the longitude of Montreal and Canso, made in the summer of 1892, have been reduced and the results forwarded to the Astronomer Royal for combination with the results of the English observers.

Marine and Fisheries.

I have received from the Astronomer Royal the following as "provisional longitude results":—

"Montreal (The pier of the transit instrument in the observatory).....	4h. 54m. 18 ^s .
"Canso (Hazel Hill. The pier near the office of the Commercial Cable Company).....	4h. 4m. 9 ^s .
"Waterville (The pier near the office of the Commercial Cable Company).....	0h. 40m. 41 ^s .

"My final report cannot be made until the Astronomer Royal has forwarded the completed reduction of the work.

"I am, sir, your most obedient servant,

"C. H. McLEOD."

STEAMBOAT INSPECTION AND CERTIFICATES TO ENGINEERS.

The annual report for the year 1893 of the Chairman of the board of inspection forms an appendix to this report. The statement showing certificates granted to engineers of steamboats, together with a list of steam vessels inspected and steam vessels not inspected; number of passengers allowed to be carried in each passenger steamboat; steam vessels added to the list, and steamers lost or laid up or rendered unfit for service during the year, will be printed in the supplement.

The amount received during the past fiscal year on account of tonnage dues, inspection of steamboats and certificates to engineers was \$25,295.35, of which the sum of \$24,521.35 was for tonnage dues and inspection fees, and \$774 for certificates to engineers. The expenditure for the fiscal year amounted to \$24,386.95, showing an excess of receipts of \$908.40.

The following is a comparative statement of receipts and expenditure:—

	Receipts.	Expenditures.
	\$ cts.	\$ cts.
For fiscal year ended 30th June, 1870	12,521 29	7,379 18
do do 1871	10,369 96	8,321 00
do do 1872	11,710 43	8,500 00
do do 1873	15,412 75	11,205 54
do do 1874	15,603 19	10,291 58
do do 1875	15,011 90	12,199 81
do do 1876	13,811 24	13,081 86
do do 1877	15,858 42	12,073 01
do do 1878	12,431 25	13,228 28
do do 1879	12,331 16	13,076 46
do do 1880	15,424 02	11,854 34
do do 1881	16,905 49	12,211 65
do do 1882	15,277 78	14,835 97
do do 1883	12,577 36	16,209 02
do do 1884	15,371 79	21,893 28
do do 1885	13,343 66	23,235 04
do do 1886	14,087 76	21,775 57
do do 1887	12,701 20	22,837 80
do do 1888	12,550 14	21,430 45
do do 1889	12,576 18	22,313 03
do do 1890	19,859 18	20,989 52
do do 1891	21,644 72	22,183 76
do do 1892	20,994 84	22,736 59
do do 1893	25,295 35	24,386 95
	363,672 06	389,269 69
Deduct receipts from expenditure		363,672 06
Balance to debit of fund		25,597 63

The Steamboat Inspection Act was further amended at the last session of Parliament. The details respecting the amendments will be found under "legislation," in this report.

The following list contains the names of the inspectors of boilers and machinery and hulls and equipment of steamboats, viz. :—

Name.	Position.	Address.
W. J. Meneilley	Chairman of Board of Steamboat Inspection.	Ottawa.
M. P. McElhinney	Inspector of hulls and equipments	do
C. R. Coker	do	St. John.
Thos. Harbottle	do	Toronto.
P. D. Brunnell	do	Quebec.
R. Collister	do	Victoria, B.C.
Thos. Donnelly	do	Kingston.
Jos. Samson	Inspector of boilers and machinery	Quebec.
George Taylor Clift	do	Montreal.
Douglas Stevens	do	Halifax.
Edward Adams	do	Kingston.
Jas. Johnson	do	Toronto.
John Dodds	do	do
J. A. Thomson	do	Victoria, B.C.
W. L. Waring	do	Halifax.
C. E. Robertson	do	Winnipeg.

COASTING TRADE OF CANADA.

By the provisions of chapter 83, Consolidated Statutes of Canada, being an Act respecting the Coasting Trade of Canada, no goods or passengers can be carried by water from one port in Canada to another except in British ships; but the Governor in Council may, from time to time, declare that the Act shall not apply to the coasting trade in such country. The Parliament of Canada was empowered to pass the Act alluded to under the provisions of the Imperial Act 32 Vic., chap. 11, intitled: "An Act for amending the Law relating to the Coasting Trade and Merchant Shipping in British Possessions," which came into operation in this country on its proclamation by the Governor General on the 23rd October, 1869.

It was ascertained that the following countries, viz., Italy, Germany, the Netherlands, Sweden and Norway, Austro-Hungary, Denmark, Belgium and the Argentine Republic, allowed British ships or vessels to participate in their coasting trade on the same footing as their own national vessels,—the ships of Italy by Order in Council of the 13th August, 1873; those of Germany by Order in Council of the 14th of May, 1874; those of Netherlands by Order in Council of the 9th of September, 1874; those of Sweden and Norway by Order in Council of the 5th November, 1874; those of Austro-Hungary by Order in Council of the 1st June, 1876; those of Denmark by Order in Council of the 25th of January, 1877; those of Belgium by Order in Council of the 30th September, 1879; and those of the Argentine Republic by Order in Council of the 18th May, 1881, were admitted to the coasting trade of Canada.

Marine and Fisheries.

INSIDE SERVICE.

THE following comprises the names of officials and employees engaged in the inside service of the Department of Marine and Fisheries on the 1st October, 1893.

Name.	Rank.	Salary.
Wm. Smith.....	Deputy Minister.....	\$ 3,600
John Hardie.....	Chief Clerk.....	2,400
S. P. Bauset.....	do.....	2,400
Wm. P. Anderson.....	Chief Engineer, General Supt. Lighthouses and Hydrographic Service.....	2,400
F. Gourdeau.....	Accountant.....	2,150
W. L. Magee.....	Chief Clerk.....	1,800
R. N. Venning.....	First class Clerk.....	1,550
W. H. Alexander.....	do do.....	1,500
W. P. McElhinney.....	do do.....	1,500
A. W. Owen.....	do do.....	1,450
E. Stanton.....	do do.....	1,450
J. S. Webster.....	Second class Clerk.....	1,400
J. B. Kent.....	do do.....	1,400
J. B. Halkett.....	do do.....	1,350
A. H. Belliveau.....	do do.....	1,300
V. C. Nicholson.....	do do.....	1,250
W. W. Stumbles.....	do do.....	1,250
V. H. Steele.....	do do.....	1,250
A. Halkett.....	do do.....	1,150
F. H. Cunningham.....	do do.....	1,150
T. Aumond.....	Third class Clerk.....	1,000
J. A. Murray.....	do do.....	950
J. McClenaghan.....	do do.....	950
D. C. Campbell.....	do do.....	900
R. Roy.....	do do.....	880
B. F. Burnett.....	do do.....	800
W. A. Mackinson.....	do do.....	700
A. H. Guion.....	do do.....	700
J. W. Watson.....	do do.....	550
W. C. Gordon.....	do do.....	500
E. W. Gilbert.....	do do.....	500
M. C. Doyle.....	do do.....	500
C. W. White.....	do do.....	400
John McCharles.....	do do.....	400
J. Morin.....	Messenger.....	500
J. A. Robertson.....	do.....	500

EXTRA CLERKS.

M. Lamouche.....	\$ 2 25 per diem
L. Bance.....	400 00 do ann.
M. O'Neil.....	400 00 do do
E. McQuarrie.....	25 00 do month.
L. Peck.....	15 00 do do

HYDROGRAPHIC SURVEYS.

W. J. Stewart.....	\$1,650 00 per ann.
C. F. Cox.....	1,300 00 do
B. H. Fraser.....	800 00 do
F. Anderson.....	700 02 do
L. J. Burpee.....	600 00 do
J. T. Fraser.....	600 00 do

OUTSIDE SERVICE, MARINE BRANCH.

The number of persons employed in the outside service on the 30th June, 1893, was as follows:—

Superintendent of lights and light-keepers, &c., in Ontario and above Montreal.....	160
Officers of agency in city of Quebec, light-keepers, fog-alarm keepers, crews of lightships, &c., at and near Montreal, in the province of Quebec.....	178
Agent, clerk, messenger, superintendent of lights, light-keepers, fog-alarm keepers, attendants at humane establishments, &c., in Nova Scotia.....	197
Agent, clerk, messenger, light-keepers, fog alarm keepers, &c., in New Brunswick.....	101
Agent and light-keepers in Prince Edward Island.....	41
Agent and light-keepers in British Columbia.....	16
Officers and crews of Dominion steamers and vessels, including Fisheries Protection Service.....	245
Captains of life-boats.....	19
Inspectors of steamboats.....	17
Examiners of masters and mate-, and clerk to chairman of board.....	15
Officers and servants in marine hospitals.....	23
Shipping masters.....	26
Harbour masters.....	187
Officers of observatories, meteorological observers, &c., receiving pay.....	149
Hydrographers and engineers, at Ottawa.....	7
Receivers of wreck.....	40
Wharfingers.....	115
Making a total of.....	1,536

For the previous year the number was 1,430. In addition to the 1,536 mentioned above, there are 79 registrars of shipping, who act under the direction and control of this department, but are, at the same time, collectors of customs at the various ports of registration, and receive no salary, or fees in their capacity of registrars. There are 95 measurers and surveyors of shipping at certain ports throughout the Dominion, who act as officers of this department, and are remunerated from their fees of office, although, in addition to such office, many of them hold a position in the customs service. Also, in addition to the above, by Orders in Council of the 21st April and 2nd December, 1874, the chief officer of customs at each port in the provinces of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, where no separate shipping office has been established, is to be held and deemed a shipping master, is to receive the fees, make the half-yearly returns to this department, and act in that capacity under its directions.

From the above statement it will be seen that there are 149 officers of observatories, &c., who receive pay for the performance of their duties; but in addition thereto there is a large number of meteorological observers throughout the Dominion who give their services gratuitously.

Marine and Fisheries.

METEOROLOGICAL SERVICE.

The report of the meteorological service by the Director, Mr. Carpmael, for the fiscal year ended 30th June, 1893, forms an appendix to this report. Mr. Carpmael reports that the interest taken by the general public in the information obtained from the data collected is shown by the increased number of inquiries from the legal, municipal and railway corporations, as well as private individuals. These inquiries entail a large amount of extra work, which is daily increasing.

The demand from persons in Toronto, and at a distance, for special forecasts continues to increase, and in all cases predictions have been furnished at once to those asking for them. As heretofore, predictions as to the approach of the first severe cold were telegraphed to the Harbour Commissioners, Montreal, enabling them to delay orders for taking up the buoys as late as possible.

Warnings of approaching storms were issued to railways.

The average number of inquiries regarding the weather by telephone at the Toronto office is about six per day. The number of inquiries by telegraph regarding the weather from outside places in direct telegraph communication with the Toronto office is about ten per week.

No charge is made in Canada for inquiries.

The information relating to forecasts is given to the public gratuitously and a display is made in conspicuous and public places in the various cities of the Dominion, of the forecasts.

The same practice exists in the United States. The forecasts are given as wide a dissemination there as possible for the benefit of all interests affected by weather or temperature changes.

When forecasts are requested for the benefit of the public, they are telegraphed at Government expense, but when utilized for the benefit of private interests the telegrams are sent at the expense of the recipients.

The Weather Bureau of the United States is connected with the Department of Agriculture at Washington.

The Meteorological Service of Great Britain is under the management of the Meteorological Council with the registered office in England. The council is an association receiving a parliamentary grant for meteorological purposes and has other sources of income.

Forecasts are supplied for subscribers at ten shillings per annum in addition to the cost of transmission, which may be by letter or book post. By daily telegraph the charge is threepence per day and cost of telegraphy.

Forecasts are supplied to clubs in London for a subscription of ten shillings per annum, and forecasts for public use at a fee of 2s. 6d. for a quarter, in addition to cost of telegrams.

Inquiries as to the weather, made personally or by messenger, are attended to on payment of one shilling. Inquiries by letter or telegram are answered on payment of one shilling.

MAGNETIC OBSERVATORIES.

The annual reports of the director of the Magnetic Observatory at Toronto and the observatories at Quebec, Montreal, Kingston and St. John, are attached to the

report on the Meteorological Service. The sum of \$4,672.59 was expended in connection with the Magnetic Observatory at Toronto, and \$500 each for the observatories at Kingston and Montreal. The total amount expended on account of Meteorological and Magnetic Observatory services for the past fiscal year was \$62,645.19.

REMOVAL OF OBSTRUCTIONS TO NAVIGATION.

The sum of \$5,000 was appropriated by Parliament for the removal of obstructions to navigation, and the sum of \$1,554.53 was expended during the fiscal year.

The barge "St. Pierre" was sunk by collision with the steamship "Ramleh" in the ship channel opposite the Commissioners' wharf, Three Rivers, P.Q. A light was maintained on the floating rigging of the barge until the rigging was removed. The water is 40 feet in depth above the barge, and it has not been considered necessary to remove the sunken vessel, as she does not form an obstruction to navigation.

The steamer "Lockwood" collided with the schooner "W. Nicholson" on the 13th November last, and sunk in the Limekiln Crossing Cut at the head of Bois Blanc Island. The wreck of the "Lockwood" was removed by the underwriters at no cost to the Government.

An old wreck which formed an obstruction to navigation in Bear River, Digby County, N.S., was removed in April last at a small cost to the department.

The schooner "Minnie Davis," owned by the firm of Danford & Alverson, of Port Huron, Michigan, was sunk by collision with another vessel near Bar Point Lightship, Lake Erie, on the 15th of November, 1892. The owners refused to remove the wreck or maintain lights upon it, and the department invited tenders for the removal. The tender of F. B. Hackett, of Amherstburg, for the sum of \$550, was accepted. The total expense connected with removing the wreck and maintaining lights was \$710.25.

The "Gladstone" was wrecked in 1888 and formed an obstruction to navigation near the breakwater in Southampton Harbour. Tenders were invited for the removal of the wreck in 1888, and the tender of Aaron McDonald for \$300 was accepted. Mr. McDonald assigned his contract to Mr. Richard Baker, who completed the work in September, 1892. The former owner removed to the United States.

The schooner "J. P. Aimes" was sunk near Harris' wharf, Moncton, N.B., in 1889. Tenders were invited for the removal of the wreck on the 30th June, 1892. The tender of Sévère Leger for \$60 was accepted, being the lowest, and the work was completed in September, 1892. Steps have been taken to recover the cost.

Obstructions to navigation in Moose River, Nova Scotia, were caused by brush and stone, the foundation of a mill owned by N. H. Upham. Mr. Upham declined to remove the obstructions. The department in the interests of navigation was therefore compelled to have the work done which cost \$60. Steps have been taken to recover this amount.

The schooner "Catherine" was sunk in the North-west Arm, Halifax Harbour, and abandoned by the owner who went to the United States. Tenders were invited and the contract for removal awarded to Messrs. Hefler Bros. of Halifax for \$150. The work was completed in June, 1893.

Marine and Fisheries.

MESSENGER PIGEONS.

A report upon the messenger pigeon service established by the department forms an appendix to this report. It will be seen by the reports of Captain L. J. Dopping Hepenstal, Royal Engineers, late Superintendent of Signals, Halifax, and Captain D. Mills, Royal Engineers, present Superintendent of Signals, that changes have been made by removing some of the birds from the loft at the Marine and Fisheries wharf to the citadel signal station. The results of the training are also shown. The following is an extract from the Halifax *Morning Herald* concerning two birds liberated at Sable Island.

"GLOUCESTER, MASS., February 11.—Captain Crittenden of the schooner "Mabel Leighton" arrived from the western banks to-day and brings tidings of the loss of the schooner "Robert J. Edwards." He says 21st January, at 4 p. m. in lat. 42°30' long. 65°5' a carrier pigeon flew on board with a flat ring on the right leg marked H. 119; attached to the bird was a note plainly written on linen paper supposed to have come from the official in charge of Sable Island. The pigeon was greatly exhausted as if it had come a long distance; written on the paper were the words:

"Sable Island, 9.30 A.M., twenty-first, 1.94 E. 30 m. 113 and 119 together. American schooner "Robert J. Edwards" lost with all hands, on the south side in a south-west hurricane. January 12 R. J. Boutillier to H. W. Johnstone, all well.

The pigeon was kept on board 15 hours and everything done to resuscitate it. Finally seeing it was unable to make land the captain took the ring and note away when it flew and fell into the water, from which it could not be rescued.

SIGNAL SERVICE.

The report of Mr. McHugh, inspector of this service at Quebec, forms an appendix to this report.

CORRESPONDENCE.

The correspondence has been gradually increasing from year to year. In 1878 the number of letters received and registered was 5,853, while the number received and registered in 1891, at the end of the calendar year, was 9,326, in the Marine branch. For the year ending 30th June last, the number of letters received and registered was 14,200. This does not include the applications for masters' and mates' certificates, wreck returns, returns from the harbour masters, shipping masters, wharfingers, nor accounts, all of which are entered in books specially kept for the purpose. The number of letters sent from the department during the year ended 30th June was 12,000.

INSPECTION OF SHIPMENT OF LIVE STOCK EXPORTED FROM CANADA.

A report from the inspectors forms an appendix to this report. It will be seen that the total number of cattle shipped in 1893, was less than for the year 1892, the figures being 83,322 fat cattle for 1893 and 98,731 fat cattle and stockers for 1892. The scheduling of Canadian cattle in Great Britain was the cause of the decrease.

Whilst the number of fat cattle shipped was greater in 1893 than in 1892 no stockers were shipped during the past year for obvious reasons.

LEGISLATION.

The following Acts were past last session of Parliament, viz. :

An Act to amend the Merchant Shipping Act, with respect to load lines.

An Act respecting the Harbour Commissioners of Montreal.

An Act to amend the Inland Waters Seamen's Act.

An Act to amend the Wrecks and Salvage Act.

An Act further to amend the Steamboat Inspection Act.

An Act to amend the Act respecting the Harbour and River Police of the Province of Quebec.

These Acts were assented to 1st April, 1893, and form an appendix to this report.

I have the honour to be, sir,

Your most obedient servant,

WM. SMITH,

Deputy Minister of Marine and Fisheries.

Department of Marine and Fisheries, Ottawa.

Marine and Fisheries.

APPENDIX No. 1

STATEMENT of Expenditure of Department of Marine for Fiscal Year ended 30th June, 1893.

Service.	Amount.	Total.
	\$ cts.	\$ cts.
Civil Government—		
Salaries.....	15,801 02	
Contingencies.....	10,676 19	
		66,477 21
Ocean and River—		
Maintenance, &c., Dominion steamers.....	146,521 77	
Repairs to steamer "Quadra".....	16,575 69	
Examinations of masters and mates.....	4,116 99	
Investigations into wrecks.....	643 49	
Removal of obstructions in navigable waters.....	1,554 53	
Registry of Canadian shipping.....	1,476 19	
Rewards for saving life, &c.....	7,432 64	
Tidal observations.....	5,099 17	
Winter mail service, Prince Edward Island.....	4,376 96	
Water police, Quebec.....	5,436 23	
		193,233 66
Lighthouse and Coast—		
Salaries and allowances of light-keepers.....	194,375 63	
Agencies, rents and contingencies.....	17,681 35	
Maintenance and repairs to lights, &c.....	258,702 99	
Construction of lighthouses.....	27,474 80	
Signal service.....	5,040 58	
Repairs to wharfs.....	84 90	
		503,360 25
Scientific Institutions—		
Toronto observatory.....	4,672 59	
Kingston do.....	500 00	
Montreal do.....	500 00	
Meteorological.....	56,972 60	
Determination of longitude, Montreal.....	1,520 41	
		64,165 60
Marine Hospitals, &c.—		
Sick and disabled seaman.....	32,900 33	
St. Catharines hospital.....	313 20	
Kingston hospital.....	391 50	
Shipwrecked and distressed seamen.....	2,152 04	
		35,757 07
Steamboat inspection.....		24,386 95
Survey, Georgian Bay.....		17,542 11
Survey, Bay of Quinte.....		2,085 45
Export cattle trade.....		1,711 73
Grand total.....		908,720 03

WM. SMITH,
Deputy Minister of Marine.

F. GOURDEAU,
Accountant.

APPENDIX No. 2.

STATEMENT of Revenue of Marine Department for the Fiscal Year ended 30th June, 1893.

Service.	Amount.
	\$ cts.
Casual Revenue (sale of Shipping Forms, \$182.75 ; Sundries, \$3,854.11).....	4,036 86
Capes Mail Service.....	416 71
Dominion Steamers.....	14,589 76
Examinations Masters and Mates.....	2,484 00
Fines and Forfeitures.....	925 00
Harbours, Piers and Wharfs.....	7,871 92
Harbour Improvement.....	25 20
Harbour Police Dues.....	3,792 90
Lighthouse and Coast Service.....	990 00
Steamboat Engineers' Certificates.....	774 00
Steamboat Inspection.....	25,283 55
Sick Mariners' Fund.....	46,200 03
	107,389 93

WM. SMITH,
Deputy Minister of Marine.

F. GOURDEAU,
Accountant.

Marine and Fisheries.

APPENDIX No. 3.

METEOROLOGICAL SERVICE.

The Honourable
The Minister of Marine and Fisheries,
Ottawa, Ont.

SIR,—I have the honour to submit herewith the twenty-third report of the Meteorological Service, this report being for the period July 1st, 1892, to June 30th, 1893, with appendices B and C, reports on Quebec and St. John observatories.

During the year the following stations were added to the number reporting:—

ONTARIO.

Class II.—

Chatham	R. C. Burt
Conestogo	Joseph Hurst
Biscotasing (resumed).....	Agent C.P.R.
Chapleau (do).....	Agent C.P.R.
Sudbury (do).....	Agent C.P.R.
Schreiber (do).....	Agent C.P.R.
Barrie.....	W. H. Buttery
Port Rowan.....	J. G. Boucher
Stratford.....	William Dick

Class III.—

Bloomington.....	B. B. Bemis
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MANITOBA.

Class II.—

Emerson.....	Michael Scott
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BRITISH COLUMBIA.

Class II.—

Glacier House.....	J. E. Bérube
Loch Erroch.....	Thomas Wilson
Chilcotin.....	W. J. Drummond
Fort Steele.....	Charles McLean
Quesnelle.....	J. E. Bourne
Vernon.....	M. Lumley
Hazel Mere.....	H. T. Thrift
Salmon Arm.....	A. G. Palmer
Mission Valley.....	A. Postill
Princeton.....	J. F. Allison
French Creek (Vancouver Island from Class III).....	W. H. Lee

Class III.—

Salt Spring Island, Gulf of Georgia.....	W. E. Scott
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During the year the following stations ceased to observe:—

Class II.—

Birnan, Ont.....	Mr. Mellor from ill-health
Sombra, Ont.....	Mr. Howell from want of time

The most serious loss the service has sustained has been the death of the observer at the chief station at Sydney, C.B., N.S., Mr. T. C. Hill, who for upwards of eighteen years was in charge of this station and performed his duties in a most careful and systematic manner, without an omission or a mistake during the whole period.

Instruments were supplied as noted in my last report to two clergymen proceeding to the McKenzie River district. One of those gentlemen, Mr. Stringer, stationed at Fort McPherson, Peel River, latitude 67 degrees N., longitude 135 degrees W., has already forwarded abstracts covering the winter of 1892-93, with curves for several months from a registering barometer with which he was furnished.

The observers in Ontario under the Deputy Minister of Agriculture, Mr. C. C. James, M.A., and in Manitoba under the Department of Agriculture, continue to discharge their self-imposed duties with commendable zeal and promptitude, and it will be seen from the large addition to the number of observers in British Columbia that considerable interest has been called forth by the special attention given to the work by the Minister of Agriculture and his deputy, Mr. J. R. Anderson, to whose selection of stations and reports upon persons recommended as observers I have in a great measure to rely, not only for those stations now reporting but for several others equipped or about to be so.

I have again to remark that in the case of those observers belonging to the staff of the Canadian Pacific Railway, liable as they are to constant removal from station to station, as the exigencies of their employment requires, this shifting tends very much to impair the value of their records and necessitates an amount of inspection for the purpose of personal instruction that is not required in other observers.

STORM SIGNAL SERVICE.

During the past year the storm warnings have been decidedly satisfactory and useful. Gales were numerous during the fall and spring, and in nearly all instances notice of their approach was given by means of the storm signals from five to twenty-four hours in advance. No important storm occurred which was not more or less satisfactorily warned. Bermuda has proved of great service, as many of the severe storms and hurricanes which pass up the Atlantic and affect our maritime coasts are first reported from this island.

TABLE No. 1.

The following table shows the total number of storm warnings issued and the percentage verified:—

Year.	Total number.	Number verified.	Percentage.
1877	743	510	68·6
1878	860	673	78·3
1879	712	591	83·0
1880	889	736	82·8
1881	854	727	85·1
1882	841	658	78·2
1883	1,085	858	79·1
1884	798	663	83·2
1885	830	741	89·3
1886	906	790	88·2
1887	1,093	972	88·9
1888	897	758	84·5
1889	1,126	926	81·3
1890	1,199	987	82·3
1891	1,017	826	81·2
1892	1,161	888	80·7
1893—Six months, 1st January to 30th June.	447	385	86·1

Marine and Fisheries.

A storm signal station was established at Cheticamp, C.B., late in June, and Dr. N. Fiset was put in charge. This station should be of great service to the large number of fishermen living in or near this place.

WEATHER FORECASTS.

Weather forecasts have been published regularly throughout the period comprised in this report, both in the newspapers and in bulletin frames at about 1,500 telegraph offices in Manitoba, Ontario, Quebec and the Maritime Provinces.

The demand from persons in Toronto and at a distance for special forecasts continues to increase, and in all cases predictions have been furnished at once to those asking for them. As heretofore, predictions as to the approach of the first severe cold were telegraphed to the Harbour Commissioner at Montreal in November last, thereby enabling them to delay the taking up of the buoys to as late a date as possible.

Warnings of approaching snow storms, as heretofore, were issued to the railways.

Train weather signals as usual were displayed during the past summer on morning trains in the older provinces, and it is gratifying to be able to state that a great deal more care has been shown by the train hands in changing the signals.

The following table (No. 2) shows the predictions and the percentage of fulfilment in each district, in each month, and in the whole period:—

NUMBER of Predictions and percentage of fulfilment in each

MONTH.	MANITOBA.					LOWER LAKE REGION.					UPPER ST. LAWRENCE.				
	Number of predictions.	Verified.				Number of predictions.	Verified.				Number of predictions.	Verified.			
		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.
July	91	70	10	10	83.5	123	100	15	8	87.4	116	101	9	6	90.9
August.	95	62	16	17	73.7	107	86	14	7	86.9	94	72	10	12	81.9
September	105	73	18	14	78.1	116	89	13	14	82.3	113	83	17	13	81.0
October	98	73	10	15	79.6	117	93	16	8	86.3	113	85	14	14	81.4
November	92	59	19	14	74.5	108	91	9	8	88.4	107	82	15	10	83.6
December	93	70	12	11	81.7	108	79	21	8	82.9	102	83	12	7	87.3
January	94	60	20	14	74.5	113	86	20	7	85.0	90	80	7	3	92.8
February	79	57	9	13	77.8	96	72	16	8	83.8	92	68	13	11	81.0
March	95	69	9	17	77.4	109	70	26	13	76.1	99	65	17	17	74.2
April	92	65	16	11	79.3	120	82	23	15	77.9	103	80	16	7	85.4
May	93	79	10	4	90.3	116	92	16	8	86.2	102	84	11	7	87.7
June	89	61	15	13	77.0	109	87	16	6	87.2	101	77	18	6	85.1
Total	1,116	799	164	153	78.9	1,342	1,027	205	110	84.2	1,232	960	159	113	84.4

NOTE—The percentage of verification is obtained by taking the sum of those fully verified and half the

Marine and Fisheries.

District in each Month, and in the Year July 1892, to June 1893.

LOWER ST. LAWRENCE.					GULF.					MARITIME.					TOTAL.				
Number of predictions.	Verified.				Number of predictions.	Verified.				Number of predictions.	Verified.				Number of predictions.	Verified.			
	Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.
121	94	21	6	86.4	117	94	12	11	85.5	120	104	10	6	90.8	688	564	77	47	87.6
95	60	14	21	70.5	97	63	16	18	73.2	89	63	16	10	79.8	577	406	86	85	77.8
109	74	17	18	75.7	111	83	17	11	82.4	109	87	15	7	86.7	663	489	97	77	81.0
102	75	14	13	80.4	99	69	11	19	75.3	105	84	13	8	86.2	634	479	78	77	81.7
105	73	18	14	78.1	104	70	18	16	76.0	102	80	13	9	84.8	618	455	92	71	81.1
99	77	11	11	83.3	98	77	12	9	84.7	100	77	17	6	85.5	600	463	85	52	84.3
94	82	6	6	90.4	100	83	14	3	90.0	97	73	19	5	85.1	588	464	86	38	86.2
93	72	10	11	82.8	90	72	8	10	84.4	97	65	19	13	76.8	547	406	75	66	81.1
95	68	14	13	78.9	93	68	15	10	81.2	97	67	15	15	76.8	588	407	96	85	77.4
105	81	18	6	85.7	100	79	11	10	84.5	101	74	18	9	82.2	621	461	102	58	82.4
101	86	9	6	89.6	97	72	13	12	80.9	96	73	16	7	84.4	605	486	75	44	86.5
97	61	11	17	76.8	94	65	12	17	75.5	93	68	15	10	81.2	583	427	87	69	80.7
1,216	911	163	142	81.6	1,200	895	159	146	81.2	1,206	915	186	105	83.6	7,312	5,507	1,036	769	82.4

sum of those partly verified and dividing by the whole number.

CENTRAL OFFICE.

The only change in the staff of the office since my last report was the resignation of Mr. F. G. Drewitt, assistant, on 31st July, and Mr. R. Cummings, telegraph operator, on 30th June.

The interest taken by the general public in the information obtained from the data collected is shown by the increased number of inquiries from legal, municipal, and railway corporations, as well as private individuals. These inquiries, however, entail a large amount of extra work, which is increasing daily.

TIME SERVICE.

The method of performing this work, together with a table showing discordance at the different observatories, will be found in the report on the Magnetic Observatory.

The report on Quebec observatory forms Appendix B.

The report on St. John observatory forms Appendix C.

VOLUNTARY OBSERVERS.

It is desirable to again draw attention to the indebtedness of this country to the many volunteer observers throughout its wide range, by whose assistance so much has been done towards interesting the public generally in a study of its varied climate, and it is much to be regretted that want of funds have necessitated a refusal from time to time to many requests for instruments, as the information given in our Monthly Weather Review is largely contributed by unpaid observers.

PUBLICATIONS.

Applications are frequently made by persons and institutions in different parts of the world for the publication of this office. Nearly 750 annual reports and over 800 copies of the Monthly Weather Review are distributed immediately upon their being printed.

LIBRARY.

The number of publications received during the year was 290, being for the most part annual reports, pamphlets, and periodicals from the principal astronomical, meteorological and magnetical institutions of the world.

INSPECTION OF STATIONS.

There were 78 stations inspected during the period covered by this report. Of these 20 were inspected by Mr. Payne, 19 by Mr. Stupart, and 39 by Mr. Webber.

These reports form Appendix A, and give the state and condition of the various places visited, and show the absolute necessity of regular and systematic inspection.

CLIMATOLOGY.

Early in the last fiscal year there was some correspondence between this office and the department regarding the accumulation of climatological data in this office, and it was suggested that a work on the climatology of the Dominion should be prepared from existing data. It is very desirable that this work should be proceeded with, and I would respectfully suggest that provision should be made for it in the supplementary estimates.

All of which is respectfully submitted.

CHARLES CARPMAEL,
Director.

Marine and Fisheries.

APPENDIX A.

INSPECTORS' REPORTS.

INSPECTOR H. V. PAYNE.

Roberval, Que., visited 21st July, 1892.—This station is on the south shore of Lake St. John, near the town. The exposure for thermometers is good and thermometers are properly placed. Minimum thermometer was out of order, reading 2° too low; this was corrected; rain gauge not properly placed and changed to good position. The observations had not been continuous owing to absence of volunteer observer who expects to be more permanently resident in future.

Chicoutimi, Que., visited 23rd July, 1892.—The observations which are made by the cloister nuns are fairly well taken, and instruments well placed. They know how to read the instruments properly and are fair observers. I pointed out several errors in the records. Minimum thermometer reading 1° too low, for which a correction will be applied. Barometer in good order but no means at present of determining height above mean sea level. This can be obtained later from survey of new line of railway.

Dalhousie, N.B., visited 26th July, 1892.—Barometer in good order, but attached thermometer was broken, and agent was using thermometer C. 32, which was not in good order. Other instruments in good order. A new large thermometer shed is necessary. The new storm signal mast is placed behind the post office, which is not as good a position as the old one on the wharf. The mast is a good one and well set up, but requires painting.

Chatham, N.B., visited 27th July, 1892.—Barometers, thermometers and rain gauge all in good order, but the position of the thermometers, in a small yard surrounded by buildings, is very poor, and readings are liable to show higher than the true temperature. The anemometer as exposed is useless. A new wind vane is required. The new post office in course of erection would (if the roof was utilized) give a far better exposure. Records are well kept.

Point Escuminac, visited 28th July, 1892.—The new observer required to be fully instructed. The anemometer was not working and no proper elements for batteries to hand. I obtained some supplies from Chatham and adjusted anemograph, etc., placing them in working order. Windvane is wearing out and will soon require renewing. New wires will require to be strung from house to fog-whistle, the present ones being too much twisted and are interfering with each other. Instruments are in good positions.

Pictou, N.S., visited 2nd August, 1892.—Storm signals were all in good order. Mast and shed required painting. Barometer in good order. The maximum thermometer is an old instrument and is reading 1° too high. The minimum was reading 6° too low, some spirit being detached. This was shaken down and instrument then read all right.

Port Hood, C.B., visited 4th August, 1892.—New signal mast is a good spar and properly set up. Ordered alterations to signal shed to facilitate the hoisting of signals.

North Sydney, C.B., visited 11th August, 1892.—The signal mast is in good shape, but will require painting next spring. The new signal shed is properly erected. I was unable to see signals as agent was out of town.

Low Point, C.B., visited 12th August, 1892.—The anemometer and anemograph are in good order. The anemometer stand has been raised 7 feet, giving a better exposure. Wind-mill vane not working very satisfactorily. The inside contact is the general trouble with these instruments.

Sydney, C.B., visited 13th August, 1892.—Barometer in same position and comparing well with standard. Thermometers of ordinary class in good order and all reading well with standard. Turn-over thermometer working, but packing required on throw-back bar and glass catches on ends of thermometers requiring wire attachments. The glass catches are a poor arrangement and easily broken. New building being erected to S.S.E. rather interferes with wind records from that direction. Wind vane re-set to N. 28° W. compass. Sunshine recorder properly set.

Louisburg, visited 15th August, 1892—Stays ordered for mast last year were not in place; ordered this to be done at once, also ordered mast to be painted, shed whitewashed and roof tarred. Last coat of painting was evidently priming (put on by former agent). Mast is getting old, but with stays may last some time yet, as foot seems sound.

Shippegan, N.B., visited 19th August, 1892—This mast is not a good stick and is not straight. It has been poorly stayed. Stays being cut too short requiring several feet of lanyards which at the time were very loose. The position is not a good one; in fact it ought to be at "The Gully" through which all boats pass, and from which it would be in full view of the open fishing ground. Where it is, it is only seen from the inland waters. Ordered stays to be tightened and shed painted. At present it is rough boards unpainted.

Caraquette, visited 22nd August, 1892.—Mast very well set up 45 feet above ground; would have been better if it was 10 feet longer. Shed and signals in good order. Position is a good one.

Bathurst, visited 23rd August, 1892.—Agent was away, and I could find no one who had been left in charge. Signal mast is in good order and well painted. The anemometer, in its present position, is useless.

Richmond, Que., visited 25th August, 1892.—Station in good order and volunteer observer much interested in his work. Would take hygrometric observations if another thermometer be sent him. Also wants new wind vane, old one being burnt at a fire. Minimum thermometer reading 2° too low. This was put in order.

St. Hyacinthe, Que., visited 27th August, 1892.—All instruments in good order. Thermometer shed well placed, but required a few alterations. Rain gauge well placed; would take wind observations and barometric readings if instruments were supplied him. Exposure for anemometer would be a good one on top of dome of college. Records well kept.

Parry Sound, Ont., visited 10th November, 1893.—Placed new signal agent, Mr. J. M. Logan, in charge. Mast and signals in fair order. Mast requires painting, and minor repairs necessary to signals and shed. These will be attended to at once by Mr. Logan.

Woodstock, Ont., 29th May, 1893.—On arriving at this station I found anemograph arms had blown away. A new anemometer was placed in position. Battery zincs much corroded, owing to wires touching zinc air flume. Battery, which is in cellar, was ordered to be placed upstairs in loft.

Port Stanley, Ont., 30th May, 1893.—The anemometer tower is in a broken down state and not safe to remain as it is. The woodwork is very rotten at base, after being twenty years in use. I would recommend that it be pulled down and a new derrick be erected in its place. It would have to be 50 feet high and can be of open work. This is the only way (owing to the surrounding trees) of obtaining a proper wind exposure.

Stratford, Ont., visited 31st May, 1893.—I started a new volunteer temperature and rain-fall observing station here. The premises are well adapted for observing, and consider W. Disk will make a good observer.

INSPECTOR B. C. WEBBER.

Port Stanley, visited 2nd August, 1892.—It was found necessary to have the anemometer wires raised higher, as the growth of neighbouring trees interfered with the proper working of the instrument. The stand carrying the anemometer is very rotten; it will be patched up once more, but shortly it will have to be replaced. A new anemometer shed had to be substituted for the old one, which was quite worn out.

Marine and Fisheries.

Peterborough, visited 4th August, 1892.—Returned minimum thermometer 72.106 to this station, it having been put in good order. Instructed observer how to unite the spirit in the thermometer, should it again become separated. The rain gauge was quite worn out, necessitating the substitution of a new one. The instruments are well exposed and Mr. Telford is a good, conscientious observer.

Sarnia, visited 6th September, 1892.—The new mast and drum house have been well and substantially built on the site on the waterworks wharf generously placed at our disposal by the Sarnia town council. A ladder has been erected alongside it, running down to water, for the convenience of vesselmen wishing to land and make further inquiries as to the expected weather (as it frequently occurs). The ladder was erected by the contractors gratis. I instructed Mr. McAdam in the duties required of a storm signal agent and feel assured that they will be faithfully attended to.

Parry Sound, visited 4th October, 1892.—A new binding screw for velocity marks in anemograph had to be furnished. The water tower erected forty feet to the southward of the anemometer tower only seriously affects one exposure from that direction. It is to be hoped that the Parry Sound council may eventually allow our service to place the anemometer on the water tower; in the meantime, however, some necessary repairs and paintings are very urgently needed on the erections now carrying the wind instruments. Mr. McKinley refused to act as storm signal agent any longer, until another agent is appointed Mr. Foote, the telegraph agent, kindly offered to do the work. The mast is a fine stick, but the drum house was out of repairs. It was reported to me that for some time the storm signal work had been very carelessly attended to at this station; the lamps certainly had the appearance of never having been used.

Beatrice, visited 6th October, 1892.—There was a large amount of air in the barometer, reading .035 inches. Mr. Hollingsworth has been in the habit of cleaning the barometer; hence the probable cause of the error. The thermometer shed is to receive a coat of paint.

Sprucedale, visited 7th October, 1892.—There was detached spirit in the minimum thermometer here of a sufficient amount to make it read 4° too low. The thermometers had been read early in the morning and entered on day read, so the maximum temperature is for the preceding day. In the future the thermometer will be read in the evening.

Cook's Mills, visited 8th October, 1892.—The observer was away on vacation and had left no one to do the observing. It appears Rev. Mr. Sims is not permanently located at Cook's Mills, so evidently the work, under existing conditions, will not be satisfactory. The instruments are in splendid order, but their position in a hollow close to the water is not a good one.

Sault Ste. Marie, visited 8th October, 1892.—The mast is a particularly good one, but it leans towards the west owing to insufficient staying. It will be necessary to sink several loads of stone in water to make a suitable foundation for the west stay. Major Elliott will procure tenders for this work, as well as for painting the mast and drum house. The lamps had to be changed, as they were faulty and would not burn. Major Elliott says that American vesselmen are of the united opinion that the drum and cone is preferable to their own system of flags.

White River, visited 10th October, 1892.—Moved the barometer from its awkward position in the telegraph office to a convenient place in observer's parlour; it received the requisite cleaning, as it was very dirty. I remained here three days in order to take a set of barometric readings to determine if the persistent high readings of the barometer at this station compared with adjoining stations was correct, and the result of my comparisons proves that such is the case. The minimum thermometer had detached spirit, making it read 1.5° too low. One catch at the end of tube was also broken. Another minimum was substituted.

Rockliffe, visited 14th October, 1892.—A large amount of the mercury had leaked out of the barometer at this station, and it was barely possible to set it as high as 29.70 inches. The leak had evidently occurred where the metal collar binds the bag to the cistern. Mr. McIntyre quite understands the manipulation of the barometer and says he is convinced that no one else had touched it. I thoroughly

renovated the barometer and left it reading correctly. I tested and remarked the thermometers; the minimum reads 1° too low. The observer had fallen back into the old error of entering 1 inch of snow as .01 instead .10.

Sudbury, visited 9th October, 1892.—I left ordinary thermometer, No. 2631, taken from Sprucedale, to replace the one stolen from the C.P.R. station here. Mr. Smale, the agent, promised to have a lock put on shed at once and to send in returns regularly.

Woodstock, visited 8th March, 1893.—Barometer cleaned; it was in a very dirty condition inside and out, owing to the use of matches instead of a lamp to take the night readings. The wind gauge battery was cleaned thoroughly; it was in a filthy condition. The maximum and minimum thermometers are correct; absence of knowledge of how to manipulate them has been the trouble. Found water in rain gauge, which observer could not explain, another instance of the general carelessness that has been displayed in the work. Unless more faithful work is done at this station in the future than in the past year or so, it is questionable whether it is worth while continuing the observations. The anemometer platform has been made higher, which improves the velocity exposure.

Port Rowan, visited 9th March, 1893.—I instructed Mr. Boucher of this place in the duties of an observer, he having generously offered to do the work. His grounds are spacious and well adapted for the exposure of instruments. Miss Templeton-Armstrong, who lives near by, will attend to the observations should Mr. Boucher be absent at any time.

London, visited 10th March, 1893.—All in good order at this station, except that some repairs were necessary to the rain gauge.

Petrolia, visited 11th March, 1893.—Closed this station and returned instruments to central office, Mr. Bell having refused to continue the work unless remunerated for it.

St. Hyacinthe, visited 2nd May, 1893.—Left barometer 1028 at this station in charge of the nominal observer, Father Choquette. The proposed position for the anemometer on the dome, 130 feet from ground, is a good exposure, but the difficulties in placing an instrument there are so great that I do not think the idea feasible, although Father Choquette is sanguine that he can overcome the obstacles. The anemometer had already been promised to this station before my visit.

Sydney, visited 6th May and 3rd June, 1893.—Removed the instruments from the late observer's to the house of the new observer, Mr. McIsaacs, those not required under the new regime being returned to the central office. The new position for the instruments is a better one than the old. I thoroughly instructed the observer in the work and left him competent. Mr. McIsaacs afterwards went away from Sydney and failed to leave his assistant well instructed. I was ordered to return to Sydney to teach the assistant, and these orders were faithfully carried out. Mr. Laffin has since done the work with great accuracy. The barometer is placed 12 feet lower than its old position and reduction table is corrected accordingly. The telegraph company will run a wire into observer's house at small cost, and as this will lessen the chances of delays I recommend that it be done.

North Sydney, visited 8th May, 1893.—The mast is rotting about twenty feet from its base and will likely soon come down. It is too old to repaint, although in need of it. The drumhouse is well and substantially built and the signals are in good order.

Low Point, visited 9th May, 1893.—Some of the wires attached to the wind gauge needed a little tightening; the exposure for velocity at this station is only fair.

Glace Bay, visited 11th May, 1893.—The signal lamps are not used at this station, as the agent reports that no vessel can either enter or leave the harbour except in daylight. The excuse for failing to send in storm reports was the want of requisite stationery.

Cow Bay, visited 11th May, 1893.—The new mast is a good stick, and both it and the drumbox have been erected according to specifications. The halyards were still unwove on my arrival. The agent promises that storm reports shall be carefully attended to.

Marine and Fisheries.

Halifax, visited 15th May, 1893.—Cleaned the barometer at this station as it was becoming opaque; some slight repairs were necessary to the anemometer, as well as to the approaches to the other instruments. At the citadel the mast is in excellent order, but the cone is much worn, the anemometer originally placed at the citadel has become destroyed; undoubtedly an excellent exposure is obtainable at this point, and considering that the one at the observer's house is so poor, I would suggest that the Imperial authorities be asked to kindly allow another anemometer to be erected in the citadel and that a small remuneration be granted to the person in whose charge it may be placed. It appears necessary that a good exposure for wind be obtained, for in the first place the proposed station at Sambro Island has not been successful, and secondly our observer unquestionably much underestimates wind force, doubtless owing to the faulty exposure of her gauge.

Liverpool, visited 17th May, 1893.—Arrived here towards evening, and as I found the cone was flying, remained incog. to see if the lamps were substituted at night according to instructions to agents. I have to report that the lamps were not substituted, and when approached on the subject next morning Mr. Hemmen's plea was illness and failure to get one of the lamps to burn. The mast and drum-house were greatly in need of paint, after the absence of it for eight years. I have further to report that a moderate gale was certainly experienced at Liverpool on this occasion, but Mr. Hemmen considered that no storm was occurring.

Yarmouth, visited 19th May, 1893.—Cleaned the barometer, as it was opaque. The connections were erroneously made to the wind gauge, consequently the direction was not, and had not been recording for two years. The anemometer itself was also faulty and had to be replaced; the exposure for velocity is very fair.

Digby, visited 20th May, 1893.—Work still performed in the old careless style at this station; maximum thermometer was useless. Signal lamps evidently not used for a very long time, and when closely questioned on the subject Mr. Turnbull admitted that he seldom used them, his chief excuse being that he could not get them to burn. The cone and drum were quite worn out, probably owing to want of care. Mr. Turnbull promises to do better in the future.

St. John, visited 22nd May, 1893.—Cleaned the barometers at this station. The work is done well and conscientiously, but Mr. Hutchison is much handicapped with the new transit instrument temporary loaned him to take the place of the one destroyed in the customs house fire, until such time as the new one promised is forthcoming.

Grand Manan, visited 23rd May, 1893.—The exposure for the anemometer here on the bluff adjoining the swallow-tail lighthouse is about the best we have in the country, but on my arrival the instrument was not working, owing to want of battery power and defective connections. Cleaned the barometer, which was opaque. The remaining instruments were in very good order.

St. Andrew's, visited 24th May, 1893.—The barometer had not been cleaned before for eight years and was extremely opaque. The minimum thermometer had detached spirits in tube equivalent to $1^{\circ}5$; cannot say how long this error has been, as observer was not aware of its existence until pointed out to him. The new mast is a capital stick. Dr. Gove still complains that signal lamps will not keep alight.

Point Lepreaux, visited 26th May, 1893.—A new rain gauge was needed here to replace the old one worn out. A supply of lamp chimneys was also required. Mr. Thomas complains of great trouble in keeping signal lamps alight. The new mast is a good stick.

Charlottetown, visited 30th May, 1893.—The anemometer had worn loose in its socket and had to be replaced by another one; all other instruments were in good order, and Mr. Newberry continued to attend to the duties with great care and zeal.

Tignish, visited 30th May, 1893.—The mast is erected at the harbour, and the telegraph office is in the village, four miles distant. Our agent lives on the road to harbour and a mile from it. The telegraph agent will not deliver messages unless well paid, but Mr. Richards, who lives adjoining telegraph office, has offered to deliver messages promptly and reasonably, and his tender was the lowest that could be pro-

cured. Tignish is an important point for the display of signals, as in the autumn as many as two hundred vessels fish off the harbour, and they are reported to appreciate the value of the warnings. Mr. Conroy, our agent, attends faithfully to the duty; he reports that until he covered the bottoms of the lamps tightly over with canvas they would not burn; now they give great satisfaction.

Pictou, visited 31st May, 1893.—The work at this station is attended to with the usual care and diligence.

Point Hood, visited 1st June, 1893.—One of the wire stays had torn away from mast, otherwise all is in good order. The lamps would not burn at this station until the air holes in the bottoms were plugged up.

Point du Chêne, visited 27th May, 1893.—Instructed one new agent in the duties required of him. The mast is a very poor affair: it will receive some necessary repairs. The harbour authorities will not allow the signal lamps to be used here, as it is claimed they interfere with the range lights.

Chebecamp, visited 2nd June, 1893.—Rev. Father Fiset has generously permitted the mast to be erected on his wharf, the most commanding position it could be placed in. The wharf adjoins our agent's residence, and as he has the telegraph office everything is very convenient. I fully instructed the agent in the duties required. Mr. Frazer, of Point Hood, received the contract for erection of the mast and the Rev. Father Fiset kindly offered to superintend its construction. Cheticamp is a large and growing fishing village, and warnings should be of much value here.

Chatham, visited 10th June, 1893.—Moved the barometer from its awkward position to one where it could be conveniently read, and gave it the requisite cleaning. The exposure for instruments here, as before reported, is very poor, and that of the anemometer useless. The observer, however, evidently attends to the duties with diligence.

Point Escuminac, visited 8th June, 1893.—Removed the anemograph from its awkward position to one where it could be conveniently attended to. The windmill vane was quite worn out and a new one had to take its place. The anemometer is still in good condition and shows no apparent wear. Mr. McLennan conscientiously attends to the duties at this station. For some time he has been handicapped owing to the defective vane.

Bathurst, visited 11th June, 1893.—Instruments badly exposed and work evidently attended to with utmost carelessness, consequently valueless. The rain gauge was inside of the thermometer shed, and the signal lamps seemingly could not at first be found. I was informed by a man who has lived adjoining one signal mast for some years that he has never seen the lamps displayed. Everything in connection with the storm warning apparatus was in poor condition, and the drum box is without a lock. The barometer was very opaque, and received the requisite cleaning. A change is urgently needed at this station.

Quebec, visited 12th June, 1893.—One of the springs in contact wakes in wind vane had become useless and failed to make contact, and this was the cause of erroneous directions often sent. The rain gauge was not solidly fastened to post, but this error has never been rectified.

INSPECTOR R. F. STUPART.

Kamloops, B.C., 1st July.—Mr. Jones, the observer at this station, is a thoroughly good observer and takes decided interest in the work. The instruments—a full set of thermometers and a rain gauge—are satisfactorily placed. Mr. Jones had been taking observations with regularity, but not forwarding them to Toronto, as he wished to keep the original records and had not had time to make duplicates. It was agreed that if he would send original to the central office it should be copied and then returned to him.

Griffin Lake, B.C., 2nd July.—A new Canadian Pacific Railway agent promises to continue the observations at this station. He thoroughly understands reading the thermometer and rainfall and the registration of the same. Both thermometer screen and rain gauge are well placed.

Marine and Fisheries

Glacier House, B.C., 2nd July.—The agent, Mr. W. H. Clark, promises to go ahead with the work; he informed me that he had never been instructed how to set and read the thermometer. The screen is on the north side of the station and the rain gauge is well placed on a post in centre of a grass plot. I fully instructed him on the reading and setting of thermometers and registering the rainfall.

Donald, B.C., 3rd July.—Mr. Redgrave gave up observing last October owing to a misunderstanding with the central office as to his reports. He has turned the work over to Mr. Cummings, a bailiff, who is, however, continually absent from Donald, and then deposes Mr. Blythe, assistant engineer, Canadian Pacific Railway, to do the work. Mr. Blythe told me that for months he had filled up forms to be sent to Toronto by Mr. Cummings and was astonished when I informed him they had not been received. I recommend that Mr. Blythe have charge of instruments. The thermometer screen is on the north-west side of the court-house, which exposure is far from good.

Banff, N.W.T. Visited summit of Tunnel Mountain, where it has been suggested there should be an anemometer; consider exposure fairly good, and results would probably be useful and instructive.

Medicine Hat, N.W.T., 5th July.—Remained over at this station, having had word from Toronto that the barometer seemed to be reading too low, and I wished to leave with Mr. Driman a spare barometer which I had brought away from Prince Albert. Comparisons showed that the barometer had remained unchanged since my previous visit in June.

Maple Creek, N.W.T., 5th July.—The C.P.R. agent, Mr. Pidgeon, agreed to take observations of maximum and minimum temperatures and rainfall. I therefore put in position a thermometer screen and rain gauge that had been sent from Lethbridge and gave full instructions in observing.

Swift Current, N.W.T., 6th July.—I again visited this station, in the hope that Mr. Knight would be ready to remove from his old quarters to some new rooms in an annex to his house in course of erection during my former visit. He was not ready, however, and I further cautioned him as to care necessary in removing barometer to its new position. Anemometer was working satisfactorily.

Virden, Man., 7th July.—Rev. Mr. Watts had not been observing for some time past, but promised to begin again; he is quite an enthusiast and would like to have a self-registering anemometer, for which there would be good exposure on the top of his house. During the frosts in August last year Mr. Watts took much trouble in making observations of temperature in different exposures and situations in the surrounding country.

Minnedosa, Man., 9th July.—Acting on written instructions from the director, I again visited this station to finally decide on a new position for the instruments. In future the temperature observations will probably show more nearly the temperature of the surrounding farm lands.

Winnipeg, Man., 10th July.—Things are as they were at my last visit, Mr. Richardson still being in charge. Gave instructions that the thermometer fence and screen be removed to the outside of yard, ten yards from either of two fences. This change will be an improvement and will entail no additional work, as with a small gate cut in the yard fence it will be directly on road to the rain gauge, which observers should visit at each observation.

Port Arthur, 11th July.—Mr. Cook reports that the signal mast should be removed to some higher ground in the town; at present masters of ships complain that the signal lanterns cannot be distinguished from the electric lights in the town; by removing the mast to the vicinity of the new custom-house, the lanterns would be raised well above the city lights. The custom-house in course of erection will completely shelter the anemometer in its present position from northerly winds. I therefore suggest that the instrument be removed to the top of the new building and the wires led to Mr. Cook's office, distant about 200 yards.

At Victoria, B.C., I called on Mr. James R. Anderson, of the Agricultural Department, asking for information as to what had been done towards obtaining observers at outlying stations in British Columbia. He gave me the names of men

likely to be willing to assist at the following points, viz., Chilcotin, Vernon, Nelson, Clinton, Princeton, and Lac la Hache.

Mr. Sharpe, at Agassiz, informed me that Mr. Eustace Smith, manager of Lord Aberdeen's farm at Okanagan Mission, would like to take observations if provided with instruments.

Owen Sound, 14th July.—The new mast at this place seems to be a thoroughly good job.

Goderich, 2nd October.—The signal mast at this station rotten at butt. Signal house in bad repair. Halyards will last balance of season, not longer. Recommend that next season a new mast and signal house be erected. Mr. Campbell, the agent, will probably do the work cheaper and as well as any one. The cone required some repairs, for which Mr. Campbell had already obtained the necessary stuff. The rain gauge is well located, and the anemometer in good order.

Bayfield, Ont., 1st October.—Was agreeably surprised at the state of affairs at this station. The mast, which is of cedar, is in good state of preservation. Signal house in good order; in it there is ample room for work. The roof opens in two parts, and signals are lowered direct into the shelter. Mr. Gardiner, jr., who has charge of this work, reports little difficulty with lanterns. The drum required some mending, which will be done in Bayfield. New halyards will be required next season.

Kincardine, 3rd October.—Signal mast and house in good shape; new cone required; halyards will last balance of the season. Dr Martyn very backward in sending in his returns, but the observations have been taken with regularity during the summer. Thermometer screen very badly exposed. Rain gauge also badly placed. Ordered a radical change in the position of these instruments.

Saugeen, 4th October.—Anemograph had not been working well; put it in good order; other instruments all right and well looked after.

Presque Isle, Ont., 5th October.—Anemograph had not been working for some months; put it in good order.

Oakville, Ont., 29th March.—It having been found necessary to move the signal mast to a new site, this station was visited with that intention, when instructions were also given for repairs to the mast.

Norwood, Ont., 11th April.—The instruments at this station were found fairly well exposed, but the anemometer and wind vane were much worn; accordingly instructions were given to return them to store.

Marine and Fisheries.

MAGNETIC OBSERVATORY,

TORONTO, 29th September, 1893.

The Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit herewith the report on this observatory for the fiscal year ended 30th June, 1893.

During the above period the six daily magnetic and meteorological eye observations taken at 6 and 8 a.m., 2, 4, 10 p.m., and midnight, have been continued as in former years. On Sundays the hours of observation are 8 a.m. and 2 p.m., in addition to the night observation for the weather service. Absolute determinations of the magnetic elements have also been made. The self-recording declination, bifilar, and vertical force magnetographs have been kept in operation, as also the barograph and thermograph.

Hourly measurements of the curves have been made and the results abstracted. We have now twelve years of hourly readings tabulated; the daily and hourly means of which have been obtained; eye observations to check the photographic records have been made three times a day, the agreement being satisfactory. On the 8th of May the magnetic clock was dismantled, cleaned, and a new spring attached to the pendulum; since then it has worked very satisfactorily. The thermograph clock was also dismantled in December and cleaned. The stop shutter which had been working a little erratically was also cleaned and adjusted. Owing to an accident, the wet bulb thermograph thermometer got broken last August. It was replaced by the auxiliary thermometer (2097) that came from England when the instrument was first sent out. I hope in a short time to have enough observations to determine its scale value, which will not be far astray from the dry bulb thermometer's scale.

The most important magnetic storms occurred on July 12, 13, 16 and 25, August 12, October 17 and 18. The declination needle on July 16 altered over 2.25 in less than fifteen minutes.

The removal of the old carpenter shop and the extension of the new fence has added considerably to the appearance of the grounds.

TIME SERVICE.

During the year 29 solar transits and observations of stars in the meridian for time on 107 days were taken at the Toronto observatory, in which 575 stars have been observed. The positions of the stars as given in the "Berliner Jahrbuch" have, as formerly, been used in the reductions.

Determinations of the collimation error of the transit instrument have been frequently made, chiefly by micrometrical measurements on the cross wires in the collimating telescope.

The exchanges of time between the observatories at Montreal, Quebec, St. John and the Toronto observatory have taken place as usual, the comparisons being registered on the chronograph. The errors of the clock at Toronto and the different time pieces used by the observers being computed from the latest observations.

The examination of the clock and chronometer comparisons and observations for time sent in from the observatories at Quebec and St. John has been performed.

The following table shows the difference between the time by "Standard Observer," and that given at the various exchanges. The sign + indicates that the

time as sent from the various observatories is faster than that by the "Standard Observer":—

	Toronto.	Montreal.	Quebec.	St. John.
1892.				
July 6th		*	Sec.	Sec.
do 26th			+1·08	+0·86
do 27th			-0·03	
August 24th				-1·16
do 31st			-0·42	-1·95
September 21st			-1·07	-1·13
October 21st			-0·36	-0·65
November 11th			-0·42	-0·96
do 30th	+0·21	-0·21	-0·78	-0·78
December 16th	+0·13	-0·13	-1·20	-3·29
do 20th			+0·60	+0·93
1893.				
January 17th				+1·10
do 18th	-0·11	+0·11	-0·02	
February 8th	+0·31	-0·31	+0·04	+0·29
do 24th	+0·45	-0·45	+0·70	
March 2nd				+0·09
do 24th	+0·40	-0·40		+0·01
do 28th			-0·20	
April 13th	+0·11	-0·11	+0·13	-0·60
do 28th	+0·02	-0·02	+1·42	
May 10th	+0·12	-0·12	-0·80	+0·26
do 31st	+0·16	-0·16	+0·12	-1·08
June 21st	+0·40	-0·40	+0·29	+0·32
do 30th	+0·21	-0·21	0·00	-0·02

* During the repairs to the Montreal transit pillar, time was given by the Toronto observatory on the following dates, viz. : July 2nd, 5th, 8th, 13th, 16th, 20th, 23rd, 26th; August 1st, 5th, 16th, 20th, 24th, 31st; September 6th, 21st, and October 6th, 1892, after which the regular exchanges went on.

Time has also been given to Halifax on the nights of exchange of time with the other observations.

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

CHARLES CARPMAEL,
Director.

TIDAL SERVICE.

TORONTO, 28th September, 1893.

The Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to report that early in July I secured the services of Capt. B. Douglas, R.N.R., to assist in the work of erecting gauges and in other work connected with the service.

Capt. Douglas joined me at Quebec on 16th July, and we proceeded by the Government es. "Alert," and arrived at South-west Point, Anticosti, on the 26th July.

After together examining the site which I had selected in the previous year, we agreed that it was the most eligible that could be chosen, that it was capable of being made safe with certain appliances, and the expenditure would be less than at any other site.

The column and other materials for the erection of the gauge were landed, and with the assistance of two carpenters and some labourers, the gauge was placed and was in working order by the 12th of August.

Marine and Fisheries.

On the 7th it blew hard from the north-west, a speed of 32 miles, and a very heavy sea rolling in, afforded a good test of the stability of the structure. But it stood well; the vibration of the column was slight.

Those who had experience of such work as well as those resident on the spot agreed that the structure as placed was secure, but as will be seen later, these anticipations were not verified.

Leaving South-west Point on the 12th August we proceeded to St. John, N.B.

Here the dispute between the city and steamboat company concerning the right to the wharf was still unsettled and I was compelled to select a new site.

Under the advice of the harbour master, Captain Taylor, and the engineers to the corporation, we selected a site in the north-east corner of the warehouse on Reed's Point wharf in preference to one I had inspected outside the warehouse, and where the gauge recently erected now stands, but at that time the harbour master considered it was not eligible, owing to its being exposed to danger of injury from ships' lines and hawsers.

Under my instructions, plans and specifications were prepared upon which tenders were invited from the contractors in St. John undertaking works connected with the building of wharfs and jetties.

The contractors likely to send in tenders were seen, and the work proposed was fully explained to them. We then proceeded to Grindstone, Magdalen Islands, where we arrived on 23rd August.

During our stay an excellent site for a tide gauge was selected at the east end of the breakwater built by one of the leading merchants, Mr. Leslie. A plan and specification of the work to be done were prepared, tenders for which were invited by Capt. Douglas on his arrival at Pictou.

We left Grindstone on the 30th August and I instructed Capt. Douglas to proceed to the Island of St. Paul's, Cabot Strait, and see if he could find a suitable site for a gauge, and then to proceed with the erection of the gauge at St. John, N.B. I myself landed at Souris, P.E.I., which I found would be a suitable place for a gauge.

Captain Douglas found St. Paul's a very difficult place to visit and much time was lost owing to his having to wait for the ss. "Harlaw," the only steamship calling there; it was therefore the 9th of September before he landed.

Mr. Campbell, the superintendent of St. Paul's, was a passenger on board the "Harlaw," and gave Capt. Douglas the fullest information respecting the island on the passage from North Sydney. Mr. Campbell and his son both rendered him every possible assistance in his examination of the only eligible anchorage and landing place on the eastern side of the island.

This little bay is called Atlantic Cove; another bay on the western side and less exposed to the ocean swell from the Atlantic is Trinity Cove, and it may possibly possess an eligible site for a tide gauge, but it is too remote from the superintendent's quarters at Atlantic Cove.

The distance across is about two miles over a very rough road. He therefore directed his attention to Atlantic Cove, and soon found an excellent site in a small cove. A good shelter from easterly gales and the Atlantic Ocean is afforded by the small rocky island running parallel and close to the shore of the main island. The depth of water at low water springs is three feet, but that can be increased by one or two feet by the removal of the loose stones and boulders on the bottom, and the foundation made level and secure thereby. The bottom is rocky with very little deposit of sand or silt, and that would entirely disappear in the fall when bad weather brings in heavy seas on the coast. The site is about 530 yards from Mr. Campbell's, the superintendent, house. The road is good, but from twenty or thirty yards from the level track to the face of the cliff above the proposed site a path protected by a hand rail and rough planking would have to be made at a small cost. From the edge of the cliff to the top of or side office, steps for descending would be required.

The column or shaft could be easily secured by crib work, and ballasted between the rocky island and cliff. The upper part of the shaft above high water could be

securely fastened to the cliff, which is solid and free from veins and fissures, by iron straps and eye bolts.

Captain Douglas returned to St. John, N.B., on the 14th September, and tenders having been asked for, the offer of Messrs. Beatteay and Thompson was accepted.

The site in the corner of the warehouse on Reed's Point wharf was opened and was found to be most unsuitable. Either the information I had received respecting it on my visit in August was incorrect, or the condition of the wharf and ballast floors had changed through the effects of the strong tides and deposits from landward. On carefully examining the nature of the bottom to a depth of 26 feet below the level of the wharf, and the accumulation of clay-like mud lying above the rocky substratum, Captain Douglas came to the conclusion that it would be wiser to abandon the site already chosen and select a fresh one. This was found in the south-east corner of the wharf, near the landing steps, but it was declared by the harbour master to be ineligible, owing to the danger from ships' lines and hawsers.

Captain Douglas having placed himself in communication with the mayor, Mr. Peters, the engineers to the corporation, and the harbour master, he obtained the necessary authority for placing the gauge there; permission was also given to remove the mooring post used by the shipping, which stood close to where the tide gauge is now placed.

After reporting this, tenders were invited, and that of Messrs. Beatteay and Thompson, at \$505, was accepted.

The work was a very difficult one to accomplish, as the gauge column had to be placed on the rocky bottom of the harbour in 53 feet of water at high water spring tides. The bottom was too hard to drive piles into; the wharf against which the gauge is placed is not in good condition; the rise and fall at springs is 30 feet, and the gauge column had to be heavily ballasted to counteract the floating power of 36 feet, which had to be perfectly water-tight.

The hydraulic pressure at high water at 36 feet in depth was very great, amounting to over 100 tons on the first yard, and bottom of the water tight column.

Considerable difficulty and some delay were experienced in making the column by additional inside beams sufficiently strong to resist the above pressure, but I am glad to report that the contractors fully and satisfactorily carried out the work.

At this stage Captain Douglas left for Anticosti on the 28th October and returned to St. John, N.B., on the 14th November, where he found the work nearly completed, but the gauge column needed protection from ice and small craft using the small dock steps. To effect this, strong sheet piling was placed to about 2 feet below the zero I used in placing the gauge.

Not having any levelling instruments and deeming it better to work in concert with the engineering staff of the corporation we sought the assistance of Mr. Hurd Peters, C.E., engineer in chief to the corporation, to fix a bench mark on the granite foundation of the custom-house in connection with the gauge. Mr. Peters cordially performed this duty.

On the 1st October a very hard gale from the north-west brought in an unusually heavy sea at South-west Point, Anticosti, which washed away the beams and other fastenings of the gauge column, as well as a large quantity of stone ballast used in the foundation of the work, and as a protection from the outside.

Miss Jessie Pope, who was in charge of the gauge in the absence of her brother, Mr. Herbert Pope, at the time it was wrecked, during the gale at great personal risk, saved the valuable mechanism in connection with the automatic gauge, and enabled Captain Douglas to bring it to headquarters after his second visit to Anticosti.

Captain Douglas visited South-west Point in November last and made a careful re-examination of the bay.

During the winter it was found that the eye reading gauge at St. John was not working satisfactorily and another form of gauge was substituted for it. This likewise did not work well and it was found that some one had dropped things into the well and almost choked it. The well was cleaned out and then worked satisfactorily.

It was found that it would be cheaper in re-erecting the gauge at South-west Point, Anticosti, to use an old boiler for placing the tide well in, than a wooden box

Marine and Fisheries.

as before. While the necessary fittings were being made and the materials for the crib-work were being got together, Captain Douglas visited several points near Cape Rosier and found at Fox River a suitable position for a gauge. He then took the gauge, well, materials and workmen to South-west Point, and on 14th July Captain Douglas sent the following report:—

“I have the honour to report the successful completion of the work at this station, and that since the 11th instant I have been waiting transport from hence for my party and myself.

“My previous letters have duly reported to you the progress of the work, but for convenient reference it may be desirable I should state the nature of the structure now erected.

“The lower crib-work foundation was built of good sound spruce 12 inches square; 4 tiers of solid timber firmly bolted together formed the base; upon this the other tiers of similar construction were raised 1 foot apart.

“The interior of the work consisted of beams framed together forming the support to the angular breakwater. At the back of the lower crib there were two beams bolted outside the work as supports to long shores of heavy round timber placed against a rocky projection in the roof of the cave. These shores were fitted and bolted to the back of the crib foundation.

“The two six-inch iron pipes, six feet long, for the admission of water through the foundation to the roses, were placed in front of the breakwater, the flanges being close to the iron plates.

“The foundation thus built was placed in position in front of the opening of the cave, the sides of the hard limestone rock arched in such a manner as to key the foundation from above and below, whilst the narrower opening of the cave and the long shores before mentioned prevented the structure from being driven inwards; the whole work is thus firmly and immovably fixed, and the superstructure was raised upon it, each cross beam being fixed into the sides of the rock, which still arched over on both sides until the work narrowed from about 13 feet below to about 5 feet above.

“As each tier of beams was placed and firmly bolted through, heavy stone ballast, which had been previously blasted out, was packed into the spaces between the sides of the work and between the timbers.

“Sheet piling of 3-inch spruce was bolted to the outside of the beams, and at the angle of the the breakwater were two iron plates of $\frac{5}{8}$ iron, each 8 ft. by 3 ft. were firmly bolted to the beams one above the other with the 3-inch planks between. The upper part of the work was further secured by beams morticed into the rock, and fastened by iron eye bolts let into the surface of the rock and heavy cross bolts.

“The office or gauge house was placed on a solid mass of timber bolted down to the work below.

“The boiler was partly let into the north-west side of the rocky wall; the rock was chiselled out to fit the curve of the boiler.

“In front of the work, the top of the breakwater was decked over with 3-inch planks firmly secured by a heavy iron strap bolted to the beams.

“The office was very strongly made to be proof against the spray, there being an outer thickness of 1-inch planking 3 feet high on three sides.

“I purposely left open the blow hole above the cave to provide for the escape of the air driven into the cave from outside by the action of the waves in bad weather. And the south-east side of the rocky ground near the gauge was kept clear so as to give a free fall to any heavy seas washing over the breakwater.

“Both the Sir William Thompson and the eye observation gauges were placed similarly to those last year.

“The work was hardly completed, in fact the gauges had only been placed on the previous evening, the 8th inst., when the weather became very threatening; on Sunday, the next day, a very strong gale set in from the north-west bringing in a heavy sea from the gulf. The seas broke over the breakwater, sending the spray in showers over the roof the gauge house. I watched the place carefully and was much gratified to find the structure stood well.

"The heavy seas striking on the work and acting on the air in the cave sent a very strong draught through the flooring, the opening in the rock near where the gauge stood last year not being sufficient for its free escape. Possibly the iron six-inch pipes through the crib foundation let in the water too freely and gave a more direct action to it than the mere interstices in the sheet piling and the sides of the work would, but it was necessary to provide for the freer escape of the confined air, as it caused a considerable amount of vibration which affected both gauges.

"During Monday, the 10th, there was a good deal of sea, but it moderated towards night and became smoother.

"Six $2\frac{1}{2}$ in. holes were bored into the south-east side of the planking below the gauge house. This had the effect of reducing the vibration very considerably.

"On Tuesday 11th inst. another very strong gale set in from the north-west bringing in a heavier sea than we had on the 9th. The seas made a complete breach over the work, and the spray at high water went fully six feet over the top of the gauge house, but everything stood well. There was not a single evidence of any weakness or fault in the structure.

"The weather moderated towards evening.

"The dipliedescope has been placed in position, and having tested it, I believe it is within 30 seconds of being correct. Mr. Pope has been instructed in its use; he considers it will be of great service to him in keeping the gauge clock correct in time.

"It affords me much pleasure to bring under your notice the intelligent and zealous assistance I have received from Mr. Pope, and I have also to record the good conduct of my party of six men from Gaspé.

"Meanwhile, the preparatory work in connection with the gauges at Grindstone, Magdalen Islands and St. Paul's Island have been put in hand, and these as well as that at Lévis will it is hoped be working before winter, so that then we shall have five gauges working."

Next season the work of observing the tidal currents should be commenced, and short series of tidal observations taken at Fox River, Souris and some other stations to be yet selected.

I have the honour to be, sir,

Your obedient servant,

CHARLES CARPMAEL,

Director.

Marine and Fisheries.

APPENDIX B.

THE QUEBEC OBSERVATORY,

QUEBEC, 11th August, 1893.

The Director,
Meteorological Service,
Toronto.

DEAR SIR,—In accordance with your request, I have to report that for the year ending 30th June, 1893, there has been no change at this observatory.

The sidereal and mean time clocks, through service, have become very unreliable when the time has to be determined from their rates. On those days of time exchange that I have had observations my time rarely differs as much as $1\cdot10^s$ from Toronto, proving, if such proof was required, that the time is determined here with a high degree of accuracy. On those days of exchange which occur during periods of continued cloudiness, when observations were impossible and the errors were dependent on a previously determined rate, the result depends entirely on the reputation of the clocks. In July last, the 28th was the last possible observation previous to the exchange of the 31st; this determined a rate of $2\cdot17^s$ losing for the sidereal and $0\cdot10^s$ losing for the mean time, from which the error in mean time at time of exchange on 31st was determined. On August 1st observations were had proving that the sidereal clock had changed its rate to $1\cdot47^s$ losing and the mean time to $0\cdot47^s$ gaining, resulting in an unusually large error, particularly as the period covered was only three days.

I have done everything that has occurred to me to improve the rate of the mean time clock; first having moved the clock from the outside exposure of the transit room into the more uniform temperature of the main building; have had both clocks well cleaned, and during April and May last carefully compensated the mean time pendulum, in as far as it was possible with such discrepancies of rate, which do not depend on temperature, would allow.

The only thing which remains to be done is to have the mean time clock returned to its makers on the close of navigation here, and have it completely overhauled, as there is no one here that I would trust to do it. As the matter is one of great importance and a source of continued worry and anxiety to me I trust that you will authorize this.

I am, &c.,

W. A. ASHE.
Director.

APPENDIX C.

THE ST. JOHN OBSERVATORY,

St. JOHN, N.B., 31st August, 1893.

CHARLES CARPMAEL, Esq.,
Director of Meteorological Service,
Toronto, Ont.

SIR,—I have the honour of presenting the annual report of this observatory. Chief station routine of meteorological observations have been continued without change since my last report.

Time service has received careful attention; observations of stars with transit instrument have been made at frequent intervals. The clocks have been going as evenly as can be expected in these temporary quarters. Daily time signal has been given to the shipping and others by dropping time ball at 1 p.m. local time. The time ball as well as the storm signals are displayed from the temporary staff on top of post office building.

Tidal observations have been made since the erection and equipment of the tidal station at Reed's Point.

A new transit house has been built on the same site as before the fire; house has been considerably enlarged and otherwise improved. The time ball apparatus is about completed and is now being placed in position; the apparatus is on the same plan as previous to the fire, except it will be dropped by electricity direct from the clock room.

Some slight improvements are being made in the observatory office, customs building; the sidereal and mean time clocks will be enclosed in vaults. Staff for display of storm and flag signals has been completed.

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

D. L. HUTCHINSON,
Director.

Marine and Fisheries.

REPORT ON THE MCGILL COLLEGE OBSERVATORY, MONTREAL, FOR THE YEAR ENDING 31st DECEMBER, 1893.

MONTREAL, 2nd January, 1894.

The Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to present the report on the McGill College Observatory, Montreal, for the year ending 31st December, 1893.

Meteorological Observations.—The regular meteorological observations, as particularized in the report of the observatory for the year 1888, have been carried forward without interruption. The daily and monthly results have been published in the *Montreal Gazette*, and the monthly summaries in the *Canadian Record of Science*.

Time Service.—Determinations of clock errors have been made by the observations of 725 star transits on 131 nights. The instant of mean noon has been given to the shipping on week days throughout the season of navigation. The automatic system of time signals in the city has been maintained, and the time has been transmitted by the railway and telegraph lines throughout the Dominion, as in former years.

The system of time exchanges with the Toronto Observatory has been continued with the following results:—The average difference between the mean time of the two observatories, on the 15 days on which exchanges were made, was 0.19 seconds, and the greatest difference on any one day was 0.41 seconds. The probable error of the time of one observatory, as compared with that of the other, at any instant, as determined from the comparisons of the year, is 0.15 seconds.

Longitudes.—The first reductions of the observations made by me in the summer of 1892 in connection with the determination of the longitude of the observatory, were completed in July last, and the results forwarded to the Astronomer Royal for combination with the results of the English observers.

The provisional values of the longitudes of the stations, as communicated by the Astronomer Royal, are:—Montreal, $4^{\text{h}} 54^{\text{m}} 18.7^{\text{s}}$; Canso (Hazel Hill), $4^{\text{h}} 4^{\text{m}} 41.3^{\text{s}}$; Waterville, Ireland, $0^{\text{h}} 40^{\text{m}} 9.3^{\text{s}}$.

Buildings.—During the summer the facilities for work in the observatory have been improved by the addition of a story to the building, and a better horizon has been secured for the Blackman telescope by the increased height of the tower.

General.—Owing to the alterations in progress in the building, it was necessary to dismount the telescope in the early summer, so that the observations on sun-spots have been interrupted. The telescope will be remounted, and the work again taken up early in the new year. It was also found impracticable to recommence the observations of soil temperatures during the year. The usual large number of applications from the public for information have been received and answered during the year.

Mr. E. Bolton, B.A.Sc., and Mr. James Stevenson, B.A.Sc., have been the principal observers during the year. From 1st January to 1st July Mr. Robert Bickerdike, jr., B.A.Sc., was engaged in the reduction of the longitude observations, and since 1st December he has been employed as computer in the observatory. Appended hereto is a summary of the meteorological results for the year.

I am, sir, your most obedient servant,

C. H. McLEOD,
Superintendent.

METEOROLOGICAL ABSTRACT

OBSERVATIONS made at McGill College Observatory, Montreal, Canada.—Height
C. H. McLEOD,

Number.	MONTH.	THERMOMETER.					* BAROMETER.			
		Mean.	Devia- tion from 19 years means.	Maximum.	Minimum.	Mean daily range.	Mean.	Maximum.	Minimum.	Mean daily range.
1	January	4.08	-7.64	41.7	-16.4	12.81	29.9449	30.677	28.943	220
2	February	12.99	-2.58	40.8	-12.7	15.50	30.0611	30.866	29.296	365
3	March	25.25	+1.22	42.9	-0.3	14.52	30.0136	30.633	29.441	263
4	April	36.80	-2.88	60.8	11.9	15.96	30.0005	30.580	29.204	274
5	May	53.87	-0.47	84.8	34.9	17.43	29.8364	30.261	29.245	212
6	June	68.01	+3.26	86.5	53.2	17.90	29.9597	30.187	20.612	131
7	July	67.69	-1.14	87.1	52.0	17.66	29.8624	30.136	29.530	154
8	August	67.85	+0.89	90.0	48.0	16.38	29.9175	30.169	29.124	166
9	September	54.83	-3.63	76.5	38.0	15.74	29.9760	30.334	29.415	189
10	October	50.29	+4.89	72.0	25.0	16.59	30.0576	30.602	29.016	223
11	November	35.21	+2.78	53.5	8.8	13.48	29.9626	30.615	29.407	271
12	December	11.81	-6.76	41.0	-13.8	17.97	30.1009	20.882	29.345	339
13	Sums for 1893.									
14	Means for 1893.	40.72	-1.01			15.99	29.9744			231
15	Means for 19 years end- ing Dec. 31, 1893.	41.73					29.9871			

* Barometer readings reduced to 32° Fahr. and to sea level. † Inches of mercury. ‡ Saturation 100. "—" that it has been *lower* than the average for 19 years inclusive of 1893. The monthly means are anemometer and wind vane are on the summit of Mount Royal, 57 feet above the ground and 810 feet

The greatest heat was 90.0 on August 11; the greatest cold was 16.4 below zero on January 11, and of the thermometer in one day was 40.3 on February 6; least range was 4.1 on April 15. The warmest mean temperature was 12.63 below zero. The highest barometer reading was 30.882 on December 14. relative humidity was 23 on May 12. The greatest mileage of wind recorded in one hour was 62 on January wind was 134.972. The resultant direction of the wind for the year was S. 60° W., and the resultant lightning without thunder on 5 days; lunar halos on 16 nights; lunar coronas on 5 nights; solar halos on December 3. On November 27, at 11 h. 47 m., there was a very sharp earthquake shock; its apparent

NOTE—The yearly means of the above are the averages of the monthly means, except for the velocity

Marine and Fisheries.

FOR THE YEAR 1893.

above sea level, 187 feet. Latitude N. 45° 30' 17". Longitude 4^h 54^m 18^s. 55 W.—
Superintendent.

+ Mean pressure of vapour.	++ Mean relative humidity.	Mean dew point.	WIND.		Means velocity in miles per hour.	Sky clouded per cent.	Per cent possible bright sunshine.	Inches of rain.	Number of days on which rain fell.	Inches of snow.	Number of days on which snow fell.	Inches of rain and snow melted.	No. of days on which rain and snow fell.	No. of days on which rain or snow fell.	Number.
			Resultant direction.												
·0475	81·3	0·1	S. 77°	W.	14·8	57·	34·0	0·10	1	22·4	16	2·49	1	16	1
·0690	80·8	0·9	S. 71°	W.	18·9	61·	40·0	0·42	4	21·1	12	2·81	2	14	2
·1150	77·5	19·4	S. 46°	W.	19·6	54·	41·0	1·28	5	6·1	9	1·97	0	14	3
·1494	67·8	26·5	S. 43°	W.	18·1	62·	42·2	1·32	12	8·4	4	2·18	2	14	4
·2856	69·7	43·0	S. 65°	W.	16·6	68·	41·6	3·36	19	.....	.....	3·36	.....	19	5
·5109	74·5	59·2	S. 40°	W.	11·2	59·	50·0	4·99	14	.....	.....	4·99	.....	14	6
·4884	72·6	57·9	S. 70°	W.	12·7	61·	58·0	4·59	16	.....	.....	4·59	.....	16	7
·5113	75·5	59·1	S. 89½°	W.	11·4	52·	55·9	7·37	15	.....	.....	7·37	.....	15	8
·3345	77·4	47·5	S. 60½°	W.	12·3	54·	49·0	2·40	12	.....	.....	2·40	.....	12	9
·2933	76·8	42·5	S. 43°	W.	14·9	50·	48·9	2·18	13	0·0	1	2·18	1	13	10
·1619	76·3	28·3	S. 36¼°	W.	16·9	65·	34·5	1·31	11	5·8	12	1·97	5	18	11
·0761	86·2	8·4	S. 80°	W.	16·3	66·	34·0	0·76	5	40·4	23	4·60	4	24	12
.....	.....	.....	S. 60½°	W.	.....	.....	.....	30·14	127	104·2	77	40·91	15	189	13
·2536	76·4	33·3	.....	.....	15·31	59·1	44·1	.....	.....	.....	.....	3·41	.....	16	14
·2500	74·4	.....	.....	.....	* 15·21	61·3	§45·7	28·18	133	122·6	82	40·14	16	200	15

§ For twelve years only. * For seven years only. " + " indicates that the temperature has been *higher*; derived from readings taken every fourth hour, beginning with 3 h. 0 m. Eastern Standard time. The above the sea level.

16·3 below zero on January 12. The extreme range of temperature was therefore 106·4. Greatest range day was August 11, when the mean temperature was 78·57. The coldest day was January 11, when the Lowest barometer reading was 28·943 on January 2, giving a range of 1·939 for the year. The lowest 29, and the greatest velocity in gusts was at the rate of 72 m. p. h. on January 29. The total mileage of mileage was 49·488 Auroras were observed on 28 nights; fogs on 5 days; thunder storms on 23 days; 10 days. The first snowfall of the autumn was on October 29. The first sleighing of the winter was on direction was N. E. to S. W. of the wind.

APPENDIX No. 4.

REPORT ON HYDROGRAPHIC WORK.

OTTAWA, 10th January, 1892.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit the following report of work done in the Technical Branch of the Department of Marine and Fisheries, in connection with Hydrographic Surveying and Tidal Observations during the past year.

TIDAL OBSERVATION WORK.

Mr. William Bell Dawson, civil engineer, has been appointed to take charge of this special work undertaken by the Department of Marine and Fisheries. He submits a very full report of all work done in connection with Tidal and Current Observations up to the present date, which I inclose herewith. (Inclosure "A.") A report of work done in this service while under the charge of Mr. Carpmael, prior to Mr. Dawson's appointment, will be found in Appendix No. 3, attached to his report as director of the Meteorological service.

HYDROGRAPHIC SURVEY OF ANTICOSTI.

This survey was not continued during the season of 1893:—The Lords Commissioners of the Admiralty having informed the Government in December, 1892, that they had received a report from Staff-Commander William Tooker, R.N., in charge of the work, of the progress made in the charting of the southern coast of Anticosti and adjacent dangers, undertaken at the request of the Canadian Government, and partly paid for by them; that Captain Tooker points out that he has only been able to complete the portion of the Island from Table Head around by East Point to about ten miles west of South Point. As it is, however, on that part of the coast of the island that nearly all wrecks have taken place, and as the present survey shows that the rocks do not extend so far from the shore as marked on the present charts, their Lordships do not propose to continue the survey of Anticosti during the year 1893, especially as the surveyors in the "Gulnare" are urgently needed in the interests of Her Majesty's ships on the coasts of Newfoundland.

A statement of expenditure during the year 1892, and up to the 31st January, 1893, was submitted to the Lords Commissioners of the Admiralty showing a total expenditure of £4,122 9s. 11d., this department accordingly transmitted to the Admiralty one-half of that sum, being \$10,031.41.

The results of Captain Tooker's survey in 1892 have been embodied in the Admiralty charts, and especially in chart No. 1621 of the entrance to the River St. Lawrence.

THE HYDROGRAPHIC SURVEY OF THE GEORGIAN BAY.

This work was continued during the past season by Mr. Wm. J. Stewart, in the steamer "Bayfield." His annual report of progress is inclosed herewith. (Inclosure "B.")

A sum of \$15,696.08 has been expended on this survey between the 1st January and 31st December, 1893.

I hope that the coming season of 1894 will complete this survey.

Marine and Fisheries.

HYDROGRAPHIC SURVEY OF THE BAY OF QUINTÉ.

The completion of the Murray Canal greatly increased the traffic, especially by steam vessels, through the Bay of Quinté, and it was found that the want of a chart of that bay, parts of which are very shallow, was a great detriment to navigation.

In compliance with strong representations made by ship owners to the department, a hydrographic survey of the bay was undertaken, which has been carried out during the past season under my personal supervision. The triangulation of the bay was effected on the ice during February and March, and the sounding was carried on between May and September, when the work was satisfactorily completed.

I engaged as a temporary assistant Mr. Thomas Drummond, D.L.S., C.E., and during the summer months Mr. F. A. Wilkin acted as sextant observer. I wish to record my appreciation of the entirely satisfactory manner in which both these gentlemen performed the duties intrusted to them.

This survey has been very economically conducted, only a small number of men being employed, and a steam yacht being hired for the summer season at \$10 per day, this sum including the services of two men.

The whole of the Bay of Quinté has been surveyed from the Murray Canal to Centre Brother Island, and the charts to be published will include the work done by the American Government between Kingston and Centre Brother Island, in connection with the Murray Canal.

It is proposed to publish the charts on two sheets of double elephant paper, on a scale of about 2,000 feet to an inch. These charts are now being prepared by the permanent staff of the department, and it is to be hoped will be ready for publication by the opening of navigation.

The total expenditure in connection with this survey has been \$4,271.37.

Respectfully submitted.

WM. P. ANDERSON,
Chief Engineer.

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(Inclosure "A.")

REPORT OF W. BELL DAWSON, C. E.

SURVEY OF TIDES AND CURRENTS IN CANADIAN WATERS.

OTTAWA, 13th January, 1894.

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SIR,—I have the honour to submit the following report with regard to the Survey of Tides and Currents in Canadian waters.

At the present stage which this work has reached, it may be well to begin by reviewing concisely the representations that have been made during the past years in bringing this matter before the notice of the Government; and the steps that have already been taken.

As long ago as the meeting of the British Association held in Montreal in 1884, the importance of publishing tide tables for Canadian waters, and the necessity of establishing stations for tidal observations was discussed. The Association adopted a resolution drawing the attention of the Government of the Dominion to the matter, and also appointed a committee to collect information and make representations to the Government regarding it. The committee consisted of Dr. A. Johnson, chairman; Professor J. G. MacGregor, of Halifax; J. B. Cherriman, of Toronto; H. T. Bovey, of Montreal; and C. Carpmael, Director of the Meteorological Service. The Montreal Board of Trade were at the same time considering the question independ-

ently, and they concurred in addressing a strong memorial on the subject to the Dominion Government. Ship owners and masters of ships were also practically unanimous as to the pressing need for knowledge on the subject of the tides and currents.

During the following sessions of Parliament, petitions and presentations were made through the then Minister of Marine. In reply, this Minister stated that owing to the outlay on the Georgian Bay Survey, and the expedition to Hudson's Bay during the summer of 1885, the Government did not propose to take action in the matter of tidal observations at that time.

In January, 1886, a large deputation representing the British Association, and the Royal Society of Canada, with representatives of the Board of Trade of Montreal, waited on the new Minister of Marine (the Hon. G. E. Foster), and also on the Premier, Sir John Macdonald. The matter was favourably received and fully discussed; and in the official answer it was stated that while the Government was fully sensible of the importance of establishing stations for continuous tidal observations in Canadian waters, it did not propose at that time, owing to the large expenditure on surveys and explorations in other directions, to undertake the additional expense involved; it was, however, fully alive to the importance of the matter, and hoped in the near future to be able to carry out a work so necessary and useful to the commercial interests of the country.

On the return of the Hudson's Bay expedition, a new source of expenditure arose; as the Government undertook to pay half the cost of a re-survey, by the British Admiralty, of part of the Lower St. Lawrence. In the summer of 1887, however, Lieut. Gordon, R.N., who had been in command of the expedition to Hudson's Bay, was authorized to make some test observations at a few points by means of the tide-staff with a view to ascertaining how far the accepted tidal establishments were to be relied upon. These observations were taken at Georgetown, P.E.I., at Louisburg, C.B., at Pictou, N.S., and at Port Hawkesbury in the Strait of Canso. In his report on this work, Lieut. Gordon explains that the object of these observations was to show to what extent the means now in the hands of navigators for the prediction of the tides on the coasts of Canada were in error; and he finds the results to show, as far as they go, that the means of prediction are very imperfect, and in some cases (such as the Strait of Canso) actually misleading. While admitting that these observations were too few in number and too rough in their nature to found any conclusions on, Lieut. Gordon considers that the results certainly strengthen the opinion that the whole question of the determination of tidal constants should be taken up in Canada, and a number of stations established for taking tidal observations; as these would be of the greatest practical value to seamen. He further points out the special value which this work will have when completed, as it will enable an intelligent ship master not only to see at what time the tide will be high or low, but also to see at once how the tidal current is setting his ship, when once the currents are charted for the waters of the Gulf.

As Staff Commander Maxwell, R. N., was at that time carrying on the re-survey in the Lower St. Lawrence, his attention was called to the memorial of the committee of the British Association, and he was asked by the department to state the nature and extent of such tidal observations as he was making. His reply is to the effect that he was doing what he could to observe the tides and currents with the means at his disposal; but that they were confessedly imperfect, and were confined to a limited area, and did not necessarily establish any comparison with any other portion of the river. To do this work in a comprehensive way, he considers the most trustworthy method to be the establishment of self-registering tide gauges at various points in the River and Gulf of St. Lawrence; with one or more vessels from which to observe day by day the condition of the tidal streams under varying states of wind and weather.

Up to the time of the accession to office of Sir C. Hibbert Tupper, K.C.M.G., as Minister of Marine in the autumn of 1888, no steps had been taken to carry out the work in accordance with the representations made. As Lieut. Gordon had spent the summer of 1888 in navigating the waters of the Gulf of St. Lawrence, he ad-

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dressed a report to the Minister based upon the further information he there gained, after carefully watching the effects of currents on his ship's course. In this report he expresses the conviction that until we have an exhaustive examination of the whole system of tidal movements, carried out on similar plans to those which have been made on the United States coasts, and on the coasts of Great Britain, we shall always be subject to an annual amount of maritime loss due to the lack of information in regard to tidal currents. He also points out that in the 18 years from 1870 to 1887, the aggregate loss was a little over 50 million dollars, or an average of \$2,782,000 per annum; and in the same period the loss of life has been 4,308 lives. A certain proportion of this loss of life and property is certainly due to imperfect knowledge of the currents; and if the number of narrow escapes of vessels from disaster or wreck were known, it would add a powerful argument in favour of proceeding with the work forthwith. He also adds that if we could only get a record of the narrow escapes, the delays, and the errors of position discovered when a fog clears away, no further argument would be required; but captains of vessels as a rule dislike to admit that they have been out of position; and dangers escaped are only remembered in a practical sense by giving the ship a little more offing the next voyage, when, if the weather is thick, it may be found that the ship is as far to the north as she was on the previous trip to the south. It is the more difficult under these circumstances to collect evidence on the subject. He is himself convinced, however, of the extreme desirability, if not the absolute necessity of proceeding with this work as soon as possible.

During the summer season of 1889 little was done of a practical character, beyond exploratory trips made by Lieut. Gordon and Mr. Carpmael, with a view to ascertaining the best points for the establishment of tide gauges.

At the conclusion of the re-surveys in the Lower St. Lawrence with this season, the expenses of which were being shared by the Canadian Government and the British Admiralty, the time was regarded as opportune to make further representations as to the pressing need for information about our tides and currents. Accordingly, in December, 1889, a petition was addressed to the Minister of Marine and Fisheries which was drawn up by the Committee of the British Association, and the Royal Society of Canada, and was signed by 393 masters and officers of vessels, to the following effect:—

“We, the undersigned masters and officers of vessels engaged in the navigation of the Gulf of St. Lawrence and of the waters on the Atlantic coast of the Dominion of Canada and of Newfoundland, desire earnestly and respectfully to petition the Government and Parliament of Canada, that they would promptly take such steps as they may deem advisable to obtain as thorough a knowledge as possible of the currents in these waters, whether due to the tides or to any other cause, and to distribute amongst mariners the information obtained. We believe that the serious loss of life and property due to shipwrecks attributable to unknown currents during fogs or hazy weather may thus be greatly diminished. In such weather these currents are a cause of great anxiety and danger.”

A further memorial was presented to the Minister by the Shipping Interest of Montreal, bearing the representative signatures of Messrs. H. and A. Allan, David Torrance & Co., H. E. Murray, Anderson McKenzie & Co., and F. W. Henshaw. This memorial points out the special deficiency in Canada of such information to mariners as is supplied by the Imperial Government in the British Tide Tables; which show not only the change in the depth of water due to rise and fall of the tide, but also supply very full information about the currents in the waters surrounding the British Islands, whether due to the action of the tides, or influenced by atmospheric causes. The annual wreck list is referred to, as showing the urgent need of similar information for Canadian waters; and as far as ascertained, ship-masters were unanimous in their anxious desire for information on the subject. The need of taking immediate action in the matter is urged, as the necessary observations will occupy some years, and every year before their completion will show its list of preventable wrecks.

This memorial was also heartily endorsed by the President of the Quebec Board of Trade. It was referred to Captain W. H. Smith, R.N.R., Chairman of the Board of Examiners of Masters and Mates, who has had thirty years' experience in the Atlantic service; and in reply he concurs in recommending that self-registering tide gauges be placed at all the prominent ports, and observations taken by competent persons.

About the same time a further communication was received from Dr. Johnson, on behalf of the Committee of the British Association, which reviews the representations already made by them. Amongst other reasons adduced, the rule of the Imperial Board of Trade is referred to. This requires all masters of ships to obtain a certificate of competency, and for this purpose to pass an examination; which examination, in the case of masters desiring a certificate for the coasting trade, includes a knowledge of the tides and tidal currents. The information enabling them to pass this examination is found in the tide tables published by the Admiralty. This is cited to show the need of obtaining data for Canadian waters on which similar information could be based. The recent re-survey of part of the Lower St. Lawrence under Staff Commander Maxwell, is also referred to; and his endeavour as far as time permitted him, to investigate the tides and currents in the part of the river in which he was at work; although he acknowledges his means to be limited and insufficient to establish comparisons with other points. The opinion of Captain Lecky, R.N.R., is also quoted from his work on "Practical Navigation." This work has received the approbation of the naval authorities of Great Britain and of the United States, and is supplied to the fleets of both these countries. In it he gives a list of 16 books which he says "may be considered absolutely essential to safe navigation in the present day, when the question of speed enters so largely into the calculation." His list includes the Admiralty "Tide Tables" and Galbraith and Haughton's "Manual of the Tides and Tidal Currents" for the waters surrounding the British Islands.

COMMENCEMENT OF THE WORK.

In the following season of 1890 a practical commencement was made. It was proposed to make some further preliminary observations; to purchase a few tide gauges; and also to make available, as far as might be possible, some old tidal records for the years 1860 and 1861, which were discovered in the archives of the Hydrographic Office, formerly at Halifax. For these purposes a sum of \$2,000 was made available; and out of this amount a sum of \$1,654.96 was expended on the above objects.

The proposed observations were made by Lieut. Gordon at two points on the Atlantic coast of Nova Scotia; the object in view being to check the accuracy of the tidal differences between Halifax and other points along the coast, in order to make Halifax if possible a "port of reference" for the whole eastern coast of Nova Scotia from Scatarie Island to Cape Sable. This was the most important thing to do first, because of the hope that the records above referred to might prove a sufficient basis from which to compute tide tables for Halifax, which might serve in the meantime until a longer series of observations could be obtained. A further object in these preliminary observations, was to ascertain by the use of different appliances and methods, those which promised to give the best and most economical results. The details of this work and the descriptions of the appliances used are given in Appendix No. 16 to 23rd Annual Report, Department of Marine and Fisheries for 1890.

To ascertain the best form of tide gauge to employ, the most careful and exhaustive inquiries were made by the Minister, aided by the advice of Mr. Carpmael, Director of the Meteorological Service. The difficulties in the case were exceptional, as at most points any ordinary apparatus is liable to freeze up in winter, and so to interrupt the record; and further, on grounds of economy, it was considered impossible to employ skilled observers for this special work, at the requisite number of stations.

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The tides themselves on the coasts of Canada, vary so much in their amount (from a height of four or five feet in the open Atlantic, to twelve and eighteen in the St. Lawrence River, and thirty feet and over in the Bay of Fundy) that a relatively large number of stations are required in order to follow their movements in any satisfactory way. In these circumstances a self-recording tide gauge, which will do the work of making the record of the tide day and night, with the least amount of supervision, is the most suitable and economical to use. To prevent freezing, and so to secure the record in winter as well as in summer, Mr. Carpmael made special inquiries and experiments which are referred to in his report of December, 1890. (Appendix No. 16 to Annual Report, Department of Marine, 1890). In making choice of the best form of tide gauge, Professor G. H. Darwin of Cambridge, the most eminent specialist on tidal questions, was consulted. He kindly gave his advice in the matter; with a view also to the reduction of the observations, and calculation of tide tables from them. The gauge finally decided upon was the one devised by Sir William Thomson, and three of these were accordingly purchased to begin with.

The records of the Halifax tides above mentioned were submitted to Mr. Edward Roberts, of the Nautical Almanac Office. Although there were breaks and imperfections in the record, he devised a special method of double computation by which these could be successfully overcome; and he was therefore able to report favourably upon them, and to recommend that tide tables should be computed from them. In making the calculations of these tides an ingenious and expensive computing machine was placed at the service of this department for a merely nominal fee. This machine was devised to facilitate the extensive tidal calculations made by the Government of India. In this way tide tables were prepared for Halifax, first issued for the year 1891, and since published annually by this department. These tables also contain tidal differences which make them available for all the important harbours on the eastern or Atlantic coast of Nova Scotia.

TIDE GAUGES, AND TIDAL STATIONS ESTABLISHED.

In order to decide upon the most suitable points at which to erect the tide gauges, the advice of Mr. T. C. Mendenhall, superintendent of the United States Coast Survey, was asked, which he kindly gave, and Mr. Carpmael also visited personally a number of localities along the Lower St. Lawrence and in the Gulf, at such times during the following season as his other duties would permit. At this time also the ill health and subsequent death of Lieut. Gordon, removed him from further participation in the work, and left it entirely on Mr. Carpmael's hands.

The points considered most suitable for the erection of the first gauges were Father Point, the south-west point of Anticosti Island, and the harbour of St. John, N.B.; and the sites which have been chosen for three additional gauges since purchased, were the Magdalen Islands, St. Paul Island, C.B., and the harbour of Quebec. For the purchase and erection of these gauges, an appropriation of \$10,000 was placed at the disposal of this department in each of the fiscal years of 1891-1892, 1892-1893, and 1893-1894, but the actual expenditure in the first two of these fiscal years was little over one-fourth of the appropriations voted.

The tide gauge itself consists essentially of a cylinder in an upright position, which is made to revolve by clock-work, once in 24 hours, and around this cylinder, a sheet of graduated paper is placed. The tide, as it rises and falls, causes a float to move up and down in a vertical pipe, which communicates by a suitable opening with the sea. This float is connected by a fine wire with the wheels and gearing of the gauge, in such a way as to cause a pencil to move up and down along the cylinder, in exact accordance with the movements of the tide, but with a much reduced range. The combined effect of the motion of the pencil and the rotation of the cylinder, is to trace on the paper an undulating curve which represents the tidal wave itself on a reduced scale. From this curve the height of the tide, the times of high and low water, and all the other elements required can be measured. Also as high water is an hour later each day, the curves showing the tides on successive days

will fall behind each other, and the gauge may therefore be allowed to go on making its record for a week on the same sheet without confusion of the curves. Alongside of this recording gauge a "sight-gauge" is placed to check the record on the other, and also to furnish a datum from which to measure the height of the tide. For this purpose there is a second vertical pipe, and a float with a staff upon it, which moves up and down with the tide itself. If the range of the tide is great, a steel tape passing over a pulley is used instead of the upright staff. The readings of this staff or tape need only be taken twice a day at convenient hours, and the corresponding points marked on the continuous record.

In placing such an appliance in position to record the tide, it is evidently necessary to secure the whole range of the tide within the vertical pipes. On ordinary beaches this can only be done by setting the whole appliance out in the water beyond the line of low tide; or else by placing it on shore and leading the tide to it by a trench or piping. It is this that occasions the chief expense in erecting the gauges in positions where there is no wharf already available, against which the gauge can be placed. The vertical pipes require to be surrounded by an open space in which heating is supplied in winter to prevent freezing, and their connection with the sea is made by means of a rose of small holes, so arranged as to reduce or efface the motion of waves within the vertical pipes.

In establishing the tide stations above mentioned, it was sometimes necessary in order to obtain the whole rise and fall of the tide, to construct a small crib of timber, and on this a small tide-house was placed to protect the instruments from the weather. These stations were erected under the immediate supervision of Captain Douglas, R.N.R., and their establishment often called for much judgment in meeting with practical difficulties which arose, and in taking advantage of local features to obtain sufficient shelter, in order to provide against their destruction by the ice, and the severe gales of the winter season. It will be unnecessary to describe the stations in detail beyond giving the following list of them, with the observers in charge, and the time during which they have been in operation to date.

TIDE GAUGE STATIONS ESTABLISHED UP TO DECEMBER, 1893.

St. John, N.B.—Gauge placed against wharf in harbour. D. L. Hutchinson, meteorological observer, in charge. In operation since December, 1892.

South-west Point, Anticosti.—Crib erected for gauge. H. Pope, lighthouse-keeper, in charge. Observations commenced July, 1893.

St. Paul Island, C.B.—Gauge on a crib built into an opening between rock cliffs. John Campbell, lighthouse-keeper, in charge. Observations commenced September, 1893.

Magdalen Islands.—At Grindstone, on east side of the islands. Gauge in a well in a timber breakwater for better protection. A. Le Bourdais, local superintendent of telegraphs, in charge. Observations commenced October, 1893.

Quebec.—Gauge placed at the Lévis Dry Dock. U. Valiquet, engineer of Dry Dock, in charge. Observations commenced November, 1893.

Father Point.—(Unfinished.) Gauge to be placed in a well sunk on shore, and tide to be led to it by a trench and piping.

TIDES.

In the interests of shipping, the investigation of the tides has in general, three aspects: (1) The times of high and low water at the principal harbours of the country, and the range of the tide. (2) The times of high and low water at the smaller ports along the coasts, and the depth of water on shoals and bars at their entrances; in which the coasting vessels are specially interested. (3) The effects of the tides in producing currents. In this last respect the Lower St. Lawrence, the Bay of Fundy, and the inlets on our Pacific coast, are amongst the most noteworthy examples to be found anywhere. As regards high and low water, the aggregate interests of the coasting trade are probably as great as those of our few principal harbours.

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In the St. Lawrence River itself above Quebec the tides have been observed for some time in connection with the work of improving the navigable channel of the river, carried out under the direction of Mr. Kennedy, Chief Engineer to the Harbour Commissioners of Montreal. Tide tables are now published by him for the use of the river pilots; and a signal station has been established to indicate the depth of water in the new channel. A detailed account of these tides is also given by Mr. R. Steckel, C.E., of the Public Works Department; which is based upon observations taken while carrying out his system of levelling operations. The results are given and fully illustrated in his Report of December, 1891, addressed to Mr. L. Coste, Chief Engineer of Public Works.

In the river below Quebec, throughout the Gulf of St. Lawrence and on the Atlantic Coast, the tidal information which we possess is still based on Admiral Bayfield's survey of nearly 60 years ago; and these data, as the Hon. G. E. Foster recognized while Minister of Marine, are not sufficiently accurate for the present time.

To obtain the required information, tidal stations must be established at commanding points, in order to follow the general course of the tides; and from these the local differences for the smaller ports can afterwards be determined. In the choice of the main stations, the chief difficulty is that the large harbours are often the least suitable to use as stations from which to determine the tidal differences of other points along the coast. The reason for this is, that many harbours such as Quebec, St. John, N. B. and New York, are at the mouths of tidal rivers; and this has the effect of complicating the times of the tide with local conditions. To avoid this difficulty, Sandy Hook has been chosen instead of New York harbour, as a point of reference for other places along the Atlantic coast. At Quebec and St. John, the same local difficulties occur; and although it is necessary to observe the tides at these harbours on account of their own importance, it is doubtful whether St. John will answer satisfactorily as a port of reference for the Bay of Fundy. On this account it is advisable to establish an additional tide gauge as soon as possible at Yarmouth, which is the best available point. It is free from local influences, and the tides have a more medium range than at St. John, making results more reliable, and it best commands the entrance to the Bay of Fundy, as the tides enter the Bay from the southward. For the Atlantic coast of Nova Scotia, Halifax is undoubtedly the locality to select, as it has the advantage of combining both the objects referred to. It is a question however, whether it would be best to place the gauge in the harbour of Halifax, where the influence of the accumulated tide in Bedford Basin may have an appreciable effect. It may be found on examination that a point outside the harbour, such as Chebucto Head, may give better results for the actual tide of the Atlantic.

In recommending the establishment of a tidal gauge at Halifax, it may be well to explain that to obtain a satisfactory basis for tide tables at so important a point, the observations should be continued for a period of 19 years. This is the period of revolution of the moon's nodes, and the period in which eclipses recur successively in the same order. Although there is a recurrence in each year of unusually high tides at the equinoxes in the spring and autumn, due to the combined influence of the sun and moon at those seasons, yet the declination of the moon is different at each succeeding equinox until the period of 19 years has elapsed. At the end of that time the sun and moon are again in positions with respect to the earth which are practically identical with those which they had at first; and the whole of the associated phenomena, including the tides, recommence again in the same sequence. This is therefore the shortest available lunar cycle for the correct computation of tides at any standard point.

As the Gulf of St. Lawrence forms a large area which is nearly land-locked, it is of the first importance to obtain complete information regarding the tides and currents at the two main entrances which connect it with the ocean. The northern entrance by the Strait of Belle Isle is only about 10 miles wide and 40 fathoms deep while the other opening between Cape Breton and Newfoundland, known on the charts as Cabot Strait, has a width of 60 miles and a depth over the greater part of this extent of about 250 fathoms. In comparison with these the Strait of Canso need

not be taken into account in its relation to the tides and currents of the Gulf as a whole; but with regard to these two main entrances themselves, it must not be taken for granted that their influence depends solely upon their relative dimensions. Judging by the movement of icebergs in the Strait of Belle Isle, the general opinion is that a large amount of cold water finds its way through it into the Gulf. This may be in reality a branch of the Arctic Current on its way south from Baffin's Bay. Although this entrance to the Gulf may seem unimportant as compared to the other, it should be remembered that a current of even half a mile an hour through this Strait would admit to the Gulf a volume of cold water more than 20 times greater than the volume discharged by the river St. Lawrence.

As regards tide however, there is little doubt that the amount entering the Gulf by the Strait of Belle Isle is relatively very small; but owing to the nature of tidal undulations, it is quite possible that its effect may be felt further than at first sight would seem likely. In addition to this, the tide is sure to have a direct influence on the movement of the current in the Strait. It is therefore necessary to establish a tide-gauge there as soon as possible. The best position will probably be at Forteau Bay, where there is a wharf and good shelter. This bay is also at the narrowest part of the Strait, where the currents can best be observed.

The main tide found in the Gulf undoubtedly enters by Cabot Strait (between Cape Breton and Newfoundland) from the general tidal wave in the Atlantic, which advances from the south-east. It is a remarkable fact that the tidal wave which enters here, does not lose itself in the great expanse of the Gulf area, but is again found with a range even greater than before in the passage between Gaspé and Anticosti, and from there continues its course, with ever increasing height, up the St. Lawrence to Quebec. This is well illustrated by the curves already recorded by the tide-gauges. The progress of the tidal wave in this leading direction, must be largely due to the existence of a deep channel, which crosses the whole extent of the Gulf from Cabot Strait to the passage referred to, between Gaspé and Anticosti; and thence extends up the St. Lawrence nearly to the Saguenay. This channel thus extends for a distance of 500 miles, with an average width of 35 miles, and a continuous depth of over 150 fathoms. It is this channel which forms an avenue of least assistance for the progress of the tidal wave.

This will explain in general the reasons for the positions chosen for the tide gauges. It was evident that observations at some point in Cabot Strait would furnish a key to the situation; but the rocky cliffs on both sides at Cape North, and Cape Ray, and the rocky character and exposed situation of St. Paul Island, made it appear impracticable to place a tide-gauge there. In locating the gauge on the Magdalen Islands, however, although it was placed on their eastern side, it soon became apparent that the tidal wave had already lost its full range in the expanse of the Gulf. A careful examination was therefore made to find if possible a position on St. Paul Island sufficiently sheltered to protect a gauge from destruction. The sheltered site at which the gauge now stands, was eventually discovered; and observations in Cabot Strait itself are thus secured.

On the main line of the progress of the tidal wave from St. Paul Island to Quebec, a distance of 650 miles, the intermediate tide stations which have been selected as most suitable are the South-west Point of Anticosti Island, and Father Point. These two points have the following important advantages: They are near to the edge of the main channel above described, which traverses the Gulf; and they are similarly situated with regard to it, as they are both within six or eight miles of the 100-fathom line; they are both situated on the open coast, where they are unaffected by such local conditions as might exist in a bay or inlet. On these grounds they are admirably adapted to follow the progress of the tide and serve as reference stations. The only position that can claim superiority to Father Point as commanding the mouth of the St. Lawrence, is Point des Monts on the north shore; as this stands more truly at the dividing line between the River and the Gulf. Against this, however, Father Point has the practical advantage of being the Pilot Station, where direct information regarding tides and currents is of the first importance and can be made directly available.

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In this chain of tidal stations an important region is still omitted. The line of the main channel across the Gulf from Cabot Strait to Gaspé, is very direct with only a slight bend to the north-east in passing the Magdalen Islands. This main channel thus forms the deep water edge of the large semi-circular bay of comparatively shallow water, which is bounded by the wide sweep of coast from Gaspé along New Brunswick to Cape Breton; and in which Prince Edward Island lies. The depth of water throughout this bay averages only about thirty fathoms; and the tidal wave has to pass over an extent of about 200 miles of this shallow water to reach its shores. It is therefore most important to establish at least one tide station somewhere near the centre of the sweep of coast which bounds it. The position I would recommend would be in the vicinity of Miramichi Bay; as this is the point furthest removed from the deep-water and from the tidal entrance at Cabot Strait. The tide gauge now on the Magdalen Islands will give in a comparatively short time, a record sufficient to establish its tidal difference from St. Paul Island; and it can then be utilized for the more permanently important position at Miramichi. This change may therefore be made with advantage before the end of next season.

At Father Point the erection of the tide-gauge was not finished, up to the beginning of the present winter, when the ice stopped further operations. It is a position which presents much difficulty, as the gauge has to be placed above high-water mark to prevent it from being carried away by the heavy ice which drifts up and down the River with the tide. This necessitates the excavation of a trench 280 feet in length across a foreshore of shale rock to lead the tide to the gauge. On account of these difficulties the wharf at Rimouski, some six miles distant, was examined before the work was commenced. The dredging of the silt to deepen the water at this wharf has caused it to settle and there is no certainty that further settlement may not take place, which would interfere seriously with observations made by a gauge placed upon it. Also in winter, there is no one at the wharf in the employ of the Government to carry on the observations; and the employment of a competent observer for the purpose would be less economical than to make the expenditure required to establish the gauge at Father Point. The practical advantage of Father Point, as the Pilot Station, is a still more important argument in its favour. The erection of the gauge there, should therefore be completed as soon as possible next season.

To complete the number of principal stations for the tidal observations in accordance with the explanations above given, three additional tides gauges should be erected at Yarmouth, Halifax, and Belle Isle respectively; the station at Father Point should be completed, and the tide gauge on the Magdalen Islands should be removed to the vicinity of Miramichi Bay. I would recommend that this be done during the coming season in order that the stations may be in operation at the earliest possible date.

CURRENTS.

There are two ways in which marine currents may be classified. From the point of view of the main routes of navigation which traverse the Gulf and follow our coasts, they may be termed Speed Currents or Cross Currents, according as they assist or retard a vessel, or tend to carry it laterally out of its course. The Gulf Stream off the American coast affords an example on a large scale of a speed current; as vessels between New York and the West Indies can obtain a distinct advantage in time by following or avoiding it. On the other hand with reference to the causes which give rise to the currents, a distinction may be made between tidal currents and those produced largely or wholly by the wind. In this connection also, the relation between surface currents and under currents is important; as the wind may displace a surface current from its normal position, and thus allow the water beneath to replace it to a greater or less extent. There are other causes also, such as difference of temperature, which may bring an under current to the surface, or occasion a surface current to sink. It must not, therefore, be hastily assumed that information regarding under currents is of no practical use for the purposes of navi-

gation. In addition to these causes the height of the barometer may also have an appreciable effect on the movement of currents.

In illustration of the above points, some examples may be given from what is already more or less distinctly known or supposed to take place in the Lower St. Lawrence and Gulf; and these examples may also serve to show the nature of the information that it is so exceedingly important to obtain with at least some degree of certainty.

From Quebec to Father Point the tidal currents occupy the whole width of the River; and although they may class as speed currents, it is only the smaller sailing craft that take any advantage of them. The steamships take their chance of gain or loss and disregard them; although the direction of the current has to be considered in calculating time of arrival in port, and making railway connections. Where the River widens the case is different, as part of the width is occupied by a constant downward current which appears usually to run parallel to the south shore at no great distance from it, all the way to Gaspé. It is possible that this current may prove to be due in some measure to the warmer and fresher waters of the St. Lawrence river, which would naturally float to the surface; and its tendency to keep to the south side may be occasioned by the prevailing direction of the wind. There is also some reason to suppose that with severe or long continued south-westerly winds, this current is displaced from its usual course and made to set in against the south side of Anticosti. If this supposition is correct, it would help to account for the "Caution" found on the chart in this neighbourhood to the effect that "the currents are governed principally by the wind." A knowledge of the usual course of such a current, and the reasons for its change in position, would enable this vague caution to be replaced by some much more definite statement, to show mariners what they have actually to expect. In the part of the Gulf to the eastward of the Magdalen Islands and Anticosti, there are some indications that the surface water has a movement in a north-westerly direction. If this movement is found to exist either permanently or at certain times, it will furnish an example of a cross current on the route of vessels coming inwards through Belle Isle. The tendency of such a current to set them to the northward of their course, would then help to explain why so many vessels in endeavouring to round the eastern end of Anticosti are wrecked on its north-eastern shores. The great importance of ascertaining the actual facts in such cases as these, is very evident.

There are other directions also in addition to the interests of shipping, in which a knowledge of the currents may be indirectly of practical importance. The good fishing grounds on the Atlantic coasts of Newfoundland and Nova Scotia and along New England are acknowledged to be due to the cold northern current which skirts these shores. It is generally believed that the cold water which enters at Belle Isle, floods the bottom of the Gulf in its deeper parts; and some knowledge of the extent to which this is the case, may throw light indirectly on the distribution of cold water fish in the Gulf area. On the other hand the oyster is found in the warmer waters of the Gulf, along the shores of New Brunswick and Prince Edward Island; although on the Atlantic coast it does not occur much north of Portland. The water is naturally warmest in the shallow parts which are least disturbed by currents; and the relation between the movement of the water and the temperature, may therefore have a bearing on the localities which the oyster prefers.

It is well known that the height of the barometer has an effect on the height of the tide. This is explained in general terms, by saying that the decreased pressure of the air allows the tide to rise higher than it otherwise would; as the difference in pressure of an inch of mercury corresponds to about a foot in the height of water. The amount of difference likely to occur in the actual height of the tide from this cause, is of little practical importance, except in the case of a harbour with a bar across its mouth. But the effect on the tidal currents may often be much more marked. For example, a low barometer over the Bay of Fundy with a rising tide can hardly fail to increase the velocity of the currents; and the amount of this increase ought to be determined. In land-locked areas such as the Gulf of St. Lawrence, the effect of the barometer is usually quite distinct, if we may judge by such

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similar instances as the Baltic Sea and the Gulf of Mexico. With a high barometer over the area of that gulf, and a lower pressure over the ocean outside, the speed of the Gulf Stream is appreciably affected. The conditions are closely parallel in the case of the Gulf of St. Lawrence, when the low pressure area of a storm is passing over the outer banks, on the course which these storms usually follow. If this is also accompanied by a strong north-westerly wind across the Gulf, it is to be expected that a considerable volume of water will be driven out at Cabot Strait, by these two causes acting together, and that the general equilibrium of the Gulf will be disturbed.

On account of these effects of the changes in atmospheric pressure, the readings of the barometer are always recorded in connection with tidal stations. This is being done in all cases in which there is no neighbouring meteorological station which will serve the purpose.

TIDES AND CURRENTS OF THE PACIFIC.

On the Pacific Coast the principal harbours of Victoria, New Westminster, Vancouver and Nanaimo, are all situated on the straits or interior waters within Vancouver Island; and the tides and currents in these are very complicated in their character. As the Gulf of Georgia, which forms the largest of these interior waters, communicates with the Pacific both to the west and to the north, the tides enter from both these directions; and the tidal currents of the numerous sounds and inlets which open off the Gulf itself, are thus complicated with those of the entering tides. It will therefore be necessary to determine as a basis the tide in the open Pacific, where it is uninfluenced by the effects of the currents in the inlets. For this purpose the best point to select is probably Cape Beale on the westside of Vancouver Island. It is the most northerly lighthouse point on that shore, and furthest removed from the mouth of the strait of San Juan de Fuca; and the form of the Cape itself indicates a good shelter besides it.

In selecting a position at which to observe the general tide in the area of the Gulf of Georgia, it must be remembered that the object in view is chiefly to establish a standard to which the direction and time of change of the currents can be referred; just as the currents in the English Channel are referred to the time of high water at Dover. For the straits and inlets of the Pacific Coast, the speed of the currents, their direction and time of change, are fully more important to a vessel than the actual time of high water at the harbour to which it may be bound. With this in view, the harbours of Vancouver and New Westminster which open off the Gulf, are not likely to prove suitable for the purpose; on account of the disturbing influences of Burrard Inlet and the Fraser River. The position chosen should be on the open shore of the Gulf, where it would be free from such influences, and also from the tide-rips which occur at the mouths of the smaller channels. A position at or near Nanaimo would fulfil these requirements, and would also be centrally situated with regard to the area of the Gulf. It is probable that this will prove on the whole the most suitable position for a tide-station, to which the currents throughout these straits can be referred. It will serve at the same time as a reference station from which the tides at Vancouver and New Westminster can be determined.

The harbour of Victoria occupies an intermediate position between the outside tides of the Pacific and those of the interior waters of the Gulf. It would be well, therefore, to have a tide station at Victoria or Esquimalt to command the Strait of Fuca, and to serve as a connecting link between the outside and inside tides as found at the other two stations, as well as for the sake of the harbour of Victoria itself.

The northern navigation to Alaska must remain for some time to come in the hands of captains who have had the opportunities to acquire a local acquaintance with the tides and currents on that route. But for the principal harbours of British Columbia the three positions I have indicated will serve as reference stations for the tides and currents on the main lines of navigation. The tide gauges at these points

should be erected at the same time, to obtain the relation required between the observations.

In considering where additional tide gauges are first required and where the survey of the currents should be commenced, the relative needs in the interest of shipping should be kept in view. On the Pacific coast the currents themselves are on the whole stronger and more variable than those encountered by the same classes of vessels on our eastern shores. On the main lines of navigation, however, the pilots join the vessels at the entrance to the Strait of Fuca; and the vessels thus obtain the assistance of local knowledge from the outset, for the straits and inlets of that coast. In the Gulf of St. Lawrence, which is traversed on two different routes by trans-Atlantic vessels, the captains have to navigate its whole extent of some 600 miles after making land, before they reach the pilot station at Father Point. It is therefore advisable that the credit which may be made available for the purposes of this Survey, should be laid out during the coming season in completing on our eastern shores the number of tide gauges required, and commencing the survey of the currents. If these are completed this season, a corresponding outlay in the season of next year, to that now estimated for the establishment of tide gauges, would equip the Pacific coast with the gauges required to obtain a basis of reference for both tides and currents.

SURVEY OF CURRENTS.

The information obtained by means of the survey should be classed and described as (1) normal conditions, and (2) exceptional conditions and disturbing influences. The normal conditions of the Gulf of St. Lawrence during the season of navigation, are a fairly steady barometer and prevailing wind from the south-west; and some of the exceptional conditions already described may be taken as examples of disturbing influences.

Under the normal conditions then, the leading causes which produce the currents are the tides themselves and the force of the prevailing wind. It is therefore necessary that the winds and tides should be observed throughout the time that the survey of the currents is in progress. In recording the winds Mr. Carpmael will be glad to co-operate by equipping more fully any of the present observatories where this may be necessary. This survey will also afford another direction in which the numerous meteorological observations now taken, may be utilized for the practical advantage of seamen. When all the tidal stations which I have indicated are established, there will be five in the Gulf and Lower St. Lawrence without counting Quebec. These must be maintained while the survey of the current is being made, to furnish the tidal data required; and during that time it may also be possible to establish some of the tidal differences between the present stations with sufficient accuracy to enable one or more of the tide gauges to be removed and utilized at new positions. It is therefore most advantageous in the interests of the work as a whole, that the survey of the currents should be commenced at once. It will also prove more economical in the long run to do so; and there is the further practical advantage of obtaining as soon as possible information which is so much needed. I would therefore recommend that this branch of the work be commenced this season.

The records made by the tide gauges now in operation have already accumulated to some extent; and it is only at present that a beginning is being made in the direction of working up the results. With the commencement of the survey of the currents, the staff at work in the summer season, could be utilized in the winter months to work up the tidal observations of the whole year. This affords a further reason in favour of carrying on the two branches of the work together.

METHODS AND APPLIANCES.

With regard to methods and appliances, it will only be necessary at present to make a few general remarks. Marine surveys have received a great stimulus in

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recent years from the "Challenger" expedition fitted out by the British Admiralty and from the investigations of the Gulf Stream by the "Blake" in connection with the United States Coast Survey. Much progress has thus been made in the appliances used; the use of the drift buoy for the measurement of currents has been largely superceded by the current-meter, although in some cases the older methods can still be used to advantage. The appliances devised for the "Blake" have made it practicable to anchor in depths ranging from 2,000 to 3,000 fathoms. It is of the greatest advantage to work from a vessel at anchor, as it affords a fixed point from which to determine the direction and velocity of the currents. This is especially important where the land is too distant to determine the direction and speed of a current by the drift of the vessel itself; and such determinations from drifting are in any case complicated with lee-way from the wind. The depths in the Gulf are not so formidable as those encountered by the "Blake," as they nowhere exceed 300 fathoms. For the survey of currents the use of a sailing vessel is found to be impracticable on account of the long delay in arriving at the spot where the observations are required and the impossibility of doing so in a calm, which is the very time when the observations would be the most accurate, the long time required to heave up the anchor by a hand windlass, and the danger to the vessel during this delay, if bad weather is the cause of departure. For these reasons it is necessary to have a steamer with steam winches, &c., which a few additional appliances would prepare for anchoring.

The observations should include the density and the temperature of the water, as well as the direction of the currents. The density is chiefly useful as an indication of its admixture with fresh water, either in the estuary or in the neighbourhood of melting icebergs. The temperature has always been found a valuable guide in tracing currents. In some situations it will be advisable to determine the under-currents also. The speed of the surface currents themselves, I propose to determine at a uniform depth of 10 feet, as this may be taken in general as half the average draught of a vessel. The speed, at this depth, will best show the movement of the body of the surface water, in relation to its effect in drifting a vessel.

In the coming season, I would recommend, as the most effective way to commence the work, that surveys be made of the two main entrances to the Gulf at Belle Isle, and at Cabot Strait between Cape Breton and Newfoundland, in order to determine the amount and direction of the currents that may be found to pass through these dominant openings. To do this work satisfactorily, observations should be carried on simultaneously at the two places, and should be continued for about three months, in order to secure the truly normal conditions of the currents, the effect of the difference between the spring and neap tides, and the disturbing effect of such exceptional conditions as may occur during that time. The under currents should be determined as well as the surface currents, so that the total amount of water which enters or leaves the Gulf area by these openings may be ascertained. The volume discharged by the St. Lawrence may also be taken into account, although a very slight movement of the waters at these large openings would more than make up for it. In this way some general basis will be obtained for the survey of the currents in the interior of the Gulf.

The sum required to carry out this work during the fiscal year 1894-1895 is shown in the estimate which I beg to append below; and I believe that to carry out the work as outlined and estimated in this report, is the most efficient and economical way of carrying on this Survey from the position it has already reached.

COMPLETION OF THE SURVEY.

The time required for the survey of the currents on both the Atlantic and Pacific coasts will be about six or eight years; on the basis of an annual expenditure as indicated, and the average annual cost should be fully covered by the amount of the present estimate; with the exception of the sum allowed for the use of the steamer, which in future years should be available for the full season. With this proviso, it will be possible in the time stated to survey the currents in the open waters traversed by the ocean-going vessels, and on the main routes leading to

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(Inclosure "B.")

HYDROGRAPHIC SURVEY OF GEORGIAN BAY.

REPORT OF W. J. STEWART.

OTTAWA, 31st October, 1893.

The Chief Engineer of the
Department of Marine and Fisheries.

SIR,—I have the honour to submit the following report upon the work of the survey of Georgian Bay for the season of 1893 :—

On April 12th Capt. Boulton having relinquished command of the survey, I was instructed to proceed with it on the same general lines as adopted by him.

On May 4th the "Bayfield" with party of twenty-two officers and crew on board, left Owen Sound to take up the portion of the chart "Western Islands to Wabaushene," left unfinished by 1891. The work occupied my attention to September 12th, the whole time being used in sounding from boat and ship that portion of the north-east shore of the bay embraced between Hope Island and Moose Point and out to line four miles west of the Western Islands and four miles west of Christian Island. This embraces an area of 215 square miles in which 740 miles of boat sounding and 800 miles of ship sounding were done. Owing to the very uneven bottom, the very small rocks and shoals rising almost perpendicularly from the bottom and the dark water, the labour involved in examining the suspicious casts developed in the linear sounding was very great.

As a result of the careful examination of the various channels, it may be said that, did business warrant the expenditure, channels could be buoyed into various harbours, as we found necessary for the economical prosecution of the work. The "Bayfield," drawing 10½ feet water, used the inside channel continually, showing that by the aid of a few buoys, the local boats trading between Collingwood, Midland and Killarney could use this channel and avoid the heavy seas that often roll in between Hope Island and "the umbrellas."

Although of little use for general navigation, the "Bayfield" used a new channel north-east of Giants Tomb Island and to the east of the Watchers.

Outside the shallow water that usually borders such islands and rocks, few shoals were found, in fact the shore is hardly as dangerous as is generally supposed, but several buoys should be placed on prominent shoals.

Around the Western Islands several very bad rocks were picked up, lying long distances from the dry rocks, and being particularly dangerous, because a lead would give no idea of their proximity and were a vessel to strike she would sink alongside in very deep water.

During the season I made two trips to Parry Sound, one to point out to the contractor the position for the new lighthouses, and the second to see if the lights were properly placed.

After completing the unfinished portion mentioned above, I turned my attention to Nottawasaga Bay and succeeded in extending the old triangulation of "Collingwood and its Approaches," first out to Point Cockburn and then to Cape Rich thus completing the main triangulation of the Bay. Next season will be fully taken up with the completion of the shore line of the same bay and the sounding of it.

With the close of this season ends the survey of the most tedious, difficult and most expensive portion, from a surveying point of view, of the shores of the lakes. Such a broken up coast line can hardly be found the world over. Whilst some portions of the lakes may be more difficult to triangulate on account of the configuration, still the progress will be more rapid, as shoals are neither so numerous, nor so hard to find. On the whole the weather during the past season has been about the average except during May which was cold and wet, the other months being dry and hot with considerable wind, not amounting to strong breezes. The fall has been unusually warm for Georgian Bay and was not marked by the long continued wet stormy weather that usually marks the closing of the season.

Mr. Anderson and I will be fully occupied during the coming winter in finishing the rough of the past season's work, preparing the sheet for the engraver, getting out sailing directions to accompany it and in calculating and plotting the triangulation of Nottawasaga Bay. During the past season charts of "Burrard Inlet," "Parry Sound and its approaches," and sailing directions for the latter were issued and are now on sale.

In closing this report I have to thank all the officers and crew for their assistance during this my first season in charge, and engaged on probably the most difficult portion of the Bay. To Capt. McGregor particularly I am much indebted as he often went a long way from his official duty to aid me and the survey in exploring for anchorages, developing and buoying channels for our own especial use, and in building large beacons when I was otherwise engaged.

I have the honour to be, sir,
Your most obedient servant,

WM. J. STEWART.

In charge S. G. B.

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APPENDIX No. 5.

STEAMBOAT INSPECTION.

REPORT OF THE CHAIRMAN OF THE BOARD OF STEAMBOAT INSPECTORS.

OTTAWA, October, 1893.

Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit herewith my annual report for the half year ending 30th June, 1893; heretofore the chairman's annual report has been made for the calendar year.

The report gives the total number of steamboats in the Dominion as known to the inspectors, form No. 1 showing those steamboats which were inspected up to the 30th of June, 1893, and form No. 2 showing the steamboats not inspected up to the 30th of June, 1893. Form No. 4 shows the number of steamboats added to the Dominion, and form No. 5 the number of steamboats lost, broken up or otherwise put out of service.

Tables A, B and C show the total number of steamboats in the Dominion, and their gross tonnage, the amount of dues and fees collected, and the number of steamboats added to the Dominion, with their gross and registered tonnage.

BOARD MEETINGS.

A meeting of the Board of Steamboat Inspection was held at Toronto on the 10th of March. The members present were James Johnston, John Dodds, Thomas Harbottle, and the chairman, at which a resolution was passed recommending the repeal of rules relating to man-holes on boiler shells, sections 38, part 1, and 56, part 2, and substituting the following rule:—

“Man-hole openings must be stiffened with compensating rings or plates of at least the same effective sectional area as the plate cut out, and in no case shall such rings or plates be of less thickness than the plate to which they are attached, nor the attachment of less strength than the plate or ring. All openings in the shells of boilers should have their short axes placed longitudinally, and if not so placed, must have compensating plates or rings, and attachments equal to twice the effective sectional area cut out.”

This resolution was approved by Order in Council, dated Tuesday, the 28th day of March, 1893.

AMENDMENTS TO THE ACT.

Section 43 of the Act 49 Victoria, chapter 78, and subsection 2, section 5, of 52 Victoria, chapter 23, amending section 61, chap. 78, were, repealed and replaced by the Act 56 Victoria, chapter 25.

Section 1 enacting that any person serving as engineer on any passenger steamboat of “whatever tonnage,” or on any freight steamboat of “over 150 tons gross,” must hold a certificate from the Minister, qualifying such person for the steamboat he is serving on, as engineer.

Section 2 provides that if he sees fit the Governor in Council may authorize the payment of a portion of any fine imposed on a steamboat to the informer.

INSPECTOR APPOINTED.

The office of inspector of steamboats in the Manitoba, Keewatin and North-west Territories division becoming vacant by the retirement of Mr. Ed. R. Abell, Mr. Charles E. Robertson was appointed to the office by Order in Council, dated the 6th day of February, 1893, and commenced his duties as steamboat inspector on the 17th of March, 1893, with his residence at Winnipeg, at a salary of \$1,000 per year.

CASUALTIES.

There were no casualties reported involving loss of life. The steamboats lost, and some minor casualties, were as follows:—

West Ontario Division.—The steamboat "Lothair," of Port Hope, was destroyed by fire at Windsor on the 2nd of January, 1893.

The "Macassa," of Hamilton, broke her port shaft on the 20th of April.

The "Northern Belle," of Owen Sound, broke her low pressure cylinder and cylinder cover, and part of her engine frame, caused by the breaking.

The "Macassa," of Hamilton, broke her port shaft on the 20th of April; her screw was also broken by striking the wharf, and when the vessel was docked to put on a new screw, the fracture in the shaft was discovered, it being in that portion of the shaft in the water.

The "Northern Belle," of Owen Sound, broke her low pressure cylinder and cylinder cover, and part of her engine frame, caused by the breaking of the low pressure crank pin strap, while on the voyage from French River to Killarney on the 11th of May. No specific reason can be given for the breakdown. A new butt has been welded on the connecting rod; a new strap has also been fitted to the rod, to which it is secured in an improved manner.

The crank pin of steamer "James Clarke" broke on 9th July. It was larger than required by our rules. She was towed to Warton and repaired.

East Ontario Division.—The steamboat "Orion," of Toronto, broke her main valve spindle on the 23rd of June when about three hours out on her voyage from Collin's Bay to the Welland Canal. The spindle broke at the bottom of the thread where connected; the break showed a slight flaw in the material. The engineer made a temporary repair and worked her back into port, for which he deserves credit for the ingenuity displayed.

Montreal Division.—The steam cable tug at Castleford while towing logs broke all the geared wheels on paddle and intermediate shafts on 1st of June, caused by the teeth riding hard in the bottom.

The steamboat "Charlotte," of Mattawa, while carrying passengers on the 13th of June from LaCave to Les Erables, ran on a rock, carrying away her tiller close to the rudder. The passengers were placed on the scow she was towing till temporary repairs were made to the tiller, which was done by taking the lever which operated the exhaust and fitting it to the rudder head. In the meantime she was pulled off by men on shore, the temporary repairs enabling her to proceed and finish her trip, and having a new tiller fitted on her returned to LaCave.

The steamboat "T. Osborne" took fire during the night of the 27th of May. The interior of the vessel was badly burned. It is not known what caused the fire.

Quebec Division.—On the 9th of June the passenger steamboat "Montreal" while lying at her wharf at Three Rivers broke her low pressure steam-chest from over pressure, or possibly from water getting through the condenser; it is not certain as to what was the cause of the breakage, further than that the steam chest was not strong enough. This weakness may have been caused by cutting away the ribs and boring holes in the same central line, thereby making the casting much weaker than it was when the inspector saw it in the shop as it was cast, and when he inspected it in the boat he could not see any alteration in the casting except the holes, which, taken alone, did not take much of the strength away.

The experts who investigated the occurrence for the owners, report that "the anxiety of your management to get the boat into commission had overruled the

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better judgment of your engineering staff, who wished to discard parts of the machinery, which were manifestly defective, but which unwisely, on the plea of urgency, were allowed to be put into the boat."

The Quebec inspector, Mr. Samson, has arranged to have the machinery of the steamboat "Montreal" taken apart and thoroughly examined by him before the next season opens.

On the 19th of June the passenger steamboat "Carolina" on her way up to Montreal ran on the rock at Chaudière on the north side of the river, which put holes through her bottom, and she made water so rapidly that she had to be beached at Cap Rouge, at the long wharf. The accident to the "Carolina" was caused by hugging the shore too closely, it is supposed to gain time.

On the 19th of June the passenger steamboat "Otter" was stranded at Seven Islands. She was pulled off by a tug and steamed to port. The accident was caused by running in a fog.

MARITIME PROVINCES DIVISION.

The passenger steamboat "Havana" got on the rocks at Burgess, Newfoundland, on the 16th of March, and had a hole knocked in her bottom. She was pumped out and towed to Halifax for repairs.

The accident occurred while attempting to moor her, by one of the mooring lines becoming entangled in the screw; the vessel then drifted on the rocks and pounded a hole in her bottom. No blame can be attached to any one, as with the greatest care accidents of this kind will occur.

The steamboat "Carroll" blew a joint out of one of her safety valve seats when leaving Boston for Halifax; she returned to Boston the same day (18th of March), and left that night for Halifax after making a new joint. The failure of the safety valve joint was a trifling affair, as had the vessel been at sea she could have proceeded with one boiler while the joint was being re-made. There does not appear to be blame attaching to any one, as joints may blow out without any previous warning being given.

The ss. "Dominion," passenger and freight, between St. John, Yarmouth and Halifax, stranded at the entrance of Lunenburg harbour on the 24th of April, and became a total wreck. I have no information as to the cause of the stranding.

MANITOBA, KEEWATIN, AND NORTH-WEST DIVISION.

The cross head of the "Millie Howell," a fishing tug on Lake Winnipeg, broke on the 17th of June, when near Horse Island, causing the cylinder end to be broken also. She was running alongside of the fishing tug "Sultana," owned by the same company, and both heading for Horse Island.

BRITISH COLUMBIA DIVISION.

The steamboat "Caribou and Fly" broke her starboard shaft near the screw on the 29th of January, when on her voyage to Skeena River. She steamed to Low's Inlet with the port screw and broke her port shaft. New shafts were sent to her from Victoria.

There are logs drifting in the waters traversed by the "Caribou and Fly" on the route to Skeena River, and it was by striking a log that the starboard shaft was broken, and the port shaft was broken by striking a boulder in Low's Inlet.

The broken shafts were strong enough, according to the rules for calculating the strength of shafts. The new shafts which were fitted to the vessel were made considerably larger than the old shafts. There was not a formal inquiry made by any one. The accident was reported to the inspector by the engineer of the vessel.

The "Vancouver," while at anchor in Miner's Bay was run into at about 2 a.m. on the 15th of May by the "Yosemite," and had her port quarter damaged. She was taken to Victoria and repaired on the marine ways. No inquiry made, nor report received by the inspector.

The "Minnehaha" was wrecked on Trial Island on the 7th of April, and became a total loss.

The inspector received no report of the loss of the "Minnehaha," nor did he make a formal inquiry, there being no loss of life, nor complaint regarding the vessel.

PROCEEDINGS ORDERED, VESSELS TIED UP, AND RESULT IN EACH CASE.

Proceedings were ordered for the prosecution of the steamboats "Camilla," "Dauntless," "J. R. Booth," "Sparrow," "Spitfire" and "Maud," in September, 1892, and the "Camilla" was fined on the 20th of January, 1893, for:

Neglecting to have inspection made and a copy of the certificate of inspection delivered to the collector of Customs.....	\$400 00
Carrying passengers not having a passenger certificate.....	50 00
Not having a certificated master.....	100 00
Not having a certificated engineer.....	100 00
Total.....	\$650 00
And costs.....	79 89

Total of fines and costs..... \$729 89.

By Orders in Council of dates the 13th February and 21st March, 1893, the moiety of the fine, amounting to \$275, belonging to the Government, and the whole of the fine (\$100) for employing an unlicensed master, were remitted on the "Camilla," provided all legal expenses were paid by the owner, Mr. John Ferguson.

"Dauntless."—This prosecution was ordered in 1892 and concluded December the 21st, 1892; fines amounting to \$650 being imposed, viz. :—

For non-inspection..	\$400
Carrying passengers without a license.....	50
Not having a licensed master.....	100
Not having a licensed engineer.....	100
Total fines.....	\$650

The fines were remitted by the Government, and the costs amounting to \$134.18, were paid by the owner.

"J. R. Booth."—The proceedings in this case were ordered in 1892, and the fines imposed on the 21st January, 1893, amounting to \$650, with costs amounting to \$83.71. The counts on which the fines were imposed were:

Running the steamboat without her having an inspection certificate.....	\$400
Without a certificated engineer.....	100
Carrying passengers on three occasions, the fine for each offence, \$50.....	150
Total fines.....	\$650

The fines were remitted, and costs paid by the owner.

"Sparrow."—In this case the fines amounted to \$500 and costs \$148.27. The fines being imposed for:

Running without having a certificate of inspection.....	\$400
Not having a certificated master.....	100
Total fines.....	\$500

The fines imposed on the "Sparrow" were remitted by the Government, the owners paying the costs.

"Spitfire."—Case withdrawn, the owner paying \$9.50 for expenses, 4th April, 1893.

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"Maud."—Case withdrawn, the owner paying \$9.50 for expenses.

The steamboats "Camilla," "Dauntless," "J. R. Booth," "Sparrow," "Spitfire," and "Maud," are all on all Lake Nipissing. It appears that the practice had been for the late inspector for the Nipissing district to send steamboat owners in locality notice as to when he would visit it to inspect their vessels. The owners were expecting the notice and coming of the inspector all through the season, and had their vessels ready for inspection, but no inspector visited that district last season, as Mr. Burgess, the inspector of the district had been superannuated and has since died, and another inspector was not appointed until the 6th of September, when he commenced work, and could not get to the Nipissing district until too late in the season to attend to it.

The carrying of passengers on the steamboat "J. R. Booth" was done by the master of the vessel without the knowledge or consent of the owner, and without receiving any remuneration or fee for carrying the passengers, and to oblige one of the Rev. Fathers who has a parish in the neighbourhood, to give his congregation an excursion on the "J. R. Booth," the only vessel running on the lake which was large enough for the purpose.

For these reasons the fines were remitted on the "J. R. Booth," and as the same reasons applied to the other steamboats fined, they were all remitted on payment of the costs.

"Wamla."—This vessel was tied up on the 26th April, 1893, on account of not having a certificate of inspection.

The plates of which the boiler is built not having the stamp or name of the maker on them, as required by law, the inspector could not grant her a certificate of inspection.

"David Weston" was built of wood in 1886, at St. John, N.B. There were repairs done on her in 1889, and she was tied up for further extensive repairs in May, 1892, by Inspector Coker. The repairs and renewals done in 1892 were:—Paddle beams, a frame, spring beams, bridge beams, paddle boxes, stringers complete length of boat, all new, of pitch pine, ends of all curbings to saloon deck made good by scarfing, 20 beams new, 12 hanging knees inside new and well fastened, all new timbers from the after end of boiler to stem of spruce, new keelsons, and four strakes of bilge keelson running right forward, all new planking from keel to gunwale on both sides, deadwood forward new, deck amidships on both sides new, deck on both wings new, 100 feet of rail new, 40 new stanchions, stern post rebolted and champed where it was split, 100 feet of guards new, and the vessel was caulked and generally overhauled.

In addition to the hull, repairs were made to the boilers, seven soft patches being put on the port boilers, and stays over furnaces in each boiler.

The owners being dissatisfied with the action of the inspector, and claiming damages for \$30,000, served a writ on Inspector Coker, on the 20th of June, 1893. The papers in the case are still in the Justice Department, no result being yet arrived at.

PENALTIES COLLECTED.

Alexander Dow, master of the steamboat "Penticton," of New Westminster, B.C., paid a fine of \$100 on the 26th of January, 1893, imposed for acting as master on the "Penticton" without having a master's certificate.

Wm. Beynon, master of the freight steamboat "Caribou and Fly," of Victoria, B.C., paid a fine of \$100 on the 6th of April, 1893, imposed for violation of the Steamboat Inspection Act, by carrying passengers on the "Caribou and Fly," the steamboat having a certificate for freight only.

I have the honour to be, sir,
Your most obedient servant,

W. J. MENEILLEY,
Chairman Board of Steamboat Inspection.

APPENDIX No. 6.

REPORT OF CHAIRMAN OF BOARD OF EXAMINERS OF MASTERS AND MATES.

HALIFAX, N.S., 28th September, 1893.

SIR,—I have the honour to submit the annual report of the proceedings of the Board of Examiners of Masters and Mates from the 30th June, 1892, to the 30th June, 1893, the end of the fiscal year.

The Board met for examinations as follows:—

Port of Halifax.....	11 times.
do St. John.....	10 do
do Yarmouth.....	8 do
do Quebec.....	2 do
Total.....	31 times.

At Halifax seventeen applications were made for foreign-going certificates as masters, ten for coasting and one for yachting.

Eleven foreign-going masters received certificates and six failed. Eight coasting masters passed and one failed and one was not examined on account of sickness. One certificate was also granted for a master yachting.

Twenty-three applications were made for foreign-going mates certificates and one for coasting.

Fifteen foreign-going mates received certificates and eight failed and one coasting mate received a certificate.

At St. John eleven candidates applied for foreign-going certificates as master, ten passed and one failed.

Twenty also applied for foreign-going certificates as mates, fourteen received certificates and six failed.

At Yarmouth seven applications were made for foreign-going certificates as master.

Three candidates were granted certificates and three failed and one was not examined on account of sickness.

Fifteen candidates applied for foreign-going certificates as mates, eight passed, seven failed.

Three applicants also presented themselves for certificates as mates' coasting, two passed and one failed.

At Quebec three candidates applied for mates' certificates foreign-going and three passed.

Thus it will be seen for the twelve months ending 30th June, 1893, thirty-five applications for masters' certificates of competency, foreign-going, and sixty-one for mates, were made.

Twenty-four masters and forty mates received certificates.

Ten applications for certificates as master coasting and four for mates, were also made to the Board of Examiners.

Eight masters and three mates obtained certificates, one yachting certificate was also granted to a candidate at Halifax.

Sixteen certificates of service were issued for masters and eleven for mates and twenty-two renewal certificates.

The total number of certificates issued by the Department of Marine and Fisheries, including competency, service and renewal, upon application of candidates

Marine and Fisheries.

to the Board of Examiners, was one hundred and twenty-six and fees to the amount of seven hundred and ninety-seven dollars were collected.

This does not include coasting and inland certificates granted by the department after an examination at other ports than those above mentioned.

Amongst these applicants, some have presented themselves, either for master or mate, a second or third time, having failed at previous examinations.

The names of these candidates appear upon the books as often as they come forward. They are, however permitted to have a second trial without paying another fee, but on each successive occasion after that, they are required to pay the full amount of the fee.

I desire to draw your attention to the fact that a number of candidates for service certificates, are still presenting their applications to the various collectors of customs at the out-ports, which are forwarded to me, but I seldom see any of this class of candidates.

It will be observed that most of them produce one testimonial, stating they held the position of master or mate, as the case may be, previous to the year 1883. Sometimes this certificate dates back several years, but it entitles them to receive a service certificate for the grade they ask for.

From the answers to questions casually put to the candidates who have made application personally to me at Halifax, it can be seen that the majority of these are capable seamen, but it is apparent that many of them know little of the regulations for preventing collisions at sea.

We so often notice in our Vice-Admiralty Courts, in cases of collision, dangerous errors shown to have been committed from ignorance of these rules, and in one recent case, the master of a schooner was blowing a horn while his vessel was at anchor in a fog, instead of ringing a bell, according to Article 12 (C) of the regulations.

It is a fact that very many small vessels do not carry a bell.

There is also an impression amongst seamen that when two steamers are approaching one another, in opposite directions, during a fog, in narrow waters, the masters may indicate to each other, if considered necessary, their intention to direct the course of their ships to port or starboard, by blowing certain blasts upon the fog whistle, although they may not have each other *in sight* at the time.

Article 19 of the Regulations distinctly states "A steamship under way may indicate that course to any other ship which *she has in sight* by the following signal, viz. :—

One short blast to mean "I am directing my course to starboard."

Two short blasts to mean "I am directing my course to port."

Three short blasts to mean "I am going full speed astern."

It can therefore be seen that in fog, in mist or falling snow, no other sound is legal than one prolonged blast upon the fog horn at intervals of two minutes, unless the other vessel *is in sight*.

I am, sir, your obedient servant,

W. W. SMITH,
Chairman.

RESULTS of the different Examinations.

PORT.	MONTH IN WHICH HELD.	APPLICATIONS.		PASSED.		FAILED.		FEES.
		Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	
Halifax	July	1 coasting.				1 coastg.		\$ 8 00
St. John	do	1	2		2	1		20 00
Halifax	August	2	2	1	2	1		15 00
do	September	2f.g. 1costg	4	2f.g. 1costg	4			58 00
		1 yachting		1 yachting				
St. John	do	2		2				20 00
do	October	1	1	1	1			15 00
Yarmouth	do	1	1	1	1			15 00
Halifax	November		3		3			15 00
Yarmouth	Nov. & Dec.	1	2f.g. 1costg		2f.g. 1costg	1		28 00
St. John	December	1	5	1f.g. 1costg	4		1	35 00
Halifax	do	1f.g. 1costg	2	1	1		1	20 00
do	January	1 coasting.		1 coasting.				8 00
St. John	do	1	1	1			1	10 00
Yarmouth	do	1	2		1	1 sick.	1	10 00
Halifax	February	2	2f.g. 1costg	2	1 coasting.		2 f.g.	29 00
St. John	do	1	1	1	1			15 00
Yarmouth	do	1	1f.g. 1costg	1	1 f.g.		1 coastg.	4 00
Halifax	March	1f.g. 1costg	3 f.g.	3 coasting.	1	1 f.g.	2 f.g.	52 00
St. John	do	2	3	2	1		2	35 00
Quebec	do		2		2			10 00
Yarmouth	do	1	3			1	3	25 00
Halifax	April	2f.g. 2costg	3	2f.g. 1costg			3	13 00
St. John	do		4		4			10 00
Quebec	do		1		1			5 00
Yarmouth	April & May	1	2		1	1	1	10 00
Halifax	May	2f.g. 1costg	2	2f.g. 1costg	2	1 f.g.		33 00
St. John	do	1	1	1	1			15 00
Yarmouth	do	1	2	1	2			10 00
Halifax	June	5	2	2	2	3		50 00
St. John	do	1	2	1			2	20 00
Yarmouth	do		2				2	5 00
								618 00

CERTIFICATES OF SERVICE.

RENEWAL CERTIFICATES,

FOREIGN-GOING.			COASTING.			COMPETENCY.			SERVICE.		
Masters	Mates	Fees.	Masters	Mates.	Fees.	Masters	Mates.	Fees.	Masters	Mates.	Fees.
		\$ cts.			\$ cts.			\$ cts.			\$ cts.
1		5 00	15		60 00	3 coastg		12 00	3 coastg.		6 00
				11	22 00	13 f. g.		65 00	2 f. g.		5 00
						1 f. g.		2 50		1 f. g.	1 50
1		5 00	15	11	82 00	16	1	79 50	5	1	12 50

Marine and Fisheries.

APPENDIX No. 7.

REPORT ON SIGNAL SERVICE.

QUEBEC, 2nd October, 1893.

SIR,—I have the honour to inclose herewith annual report and Appendices A, B and C for the fiscal year ending 30th June, 1893.

Your most obedient servant,

H. J. MCHUGH.

QUEBEC, 30th September, 1893.

To the Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit the following report as to the service for the year ending 30th June, 1893.

As in preceding seasons, reports have been received from the stations in the lower part of the river and gulf, recording the weather, wind, condition, location and movement of the ice during the winter and spring months and during the season of navigation all inward and outward vessels as signalled or seen from the stations.

The winter of 1891-92 was remarkable for the light fall of snow and the lateness of the season when ice first formed. The past winter of 1892-93 has been equally as remarkable. Navigation was feasible all winter, even to ports that as a rule are inaccessible in winter. Sydney Harbour was open throughout the whole winter. The s.s. "Havana," of Halifax, trading from that port to Newfoundland was able to call in to North Sydney weekly during the whole winter.

The ice met by incoming steamers was outside the gulf with the exception of some field ice between Cape Bay and the Bird Rocks. For a few days owing to heavy west and north-west winds the north and west coast of Cape Breton and the vicinity of the south side of St. Paul's Island was packed with ice and disappeared shortly after.

The Gut of Canso was closed to navigation on 8th January, 1893, and clear of ice on the 22nd April.

Port Mulgrave, Gut of Canso was named a reporting station on the 3rd of November, 1892, with the purpose of reporting a clear passage to vessels. These reports were sent to Halifax, N.S., Pictou, N.B., and Charlottetown, P.E.I.

Grosse Isle Quarantine Station was also named a reporting station on the 18th May, 1893. All transatlantic vessels are reported as soon as pratique is given them, this has proved of great advantage to the shipping interests.

From the 1st to the 20th April three reports per week were obtained and forwarded to the Boards of Trade, Montreal, St. John, N.B., and Quebec and to the Chamber of Commerce, Halifax, N.S.; also to the press of Montreal and Quebec, to the agent of the Department, Quebec, to the Custom-house and Immigration agent, to agents of steamship lines, tug owners, to the pilots for below and above Quebec, also to Messrs. H. Fry & Co., Lloyds Agents, Quebec.

From the 20th of April, two reports were received and forwarded as above, and in addition the News Room, North Sydney, is also supplied with the reports during the season of navigation. The Quarantine doctor at Rimouski is also supplied with a report of the incoming mail steamers.

Information as to the wind, weather and ice in the vicinity of Anticosti, Magdalen Islands, Meat Cove, C.B., St. Paul's Island, Cape Ray, Nfld., is also sent to Point Esquimaux for the guidance of the sealing fleet.

This is the third season that no ice has been seen in the vicinity of St. Pierre-Miquelon.

Full information was supplied from the Bureau here to the agents at Anticosti, Magdalen Islands, Meat Cove, C.B., St. Paul's Island, Cape Ray, Nfld., Low Point, North Sydney, from the 18th April and to Cape Race from the 13th April, as to the weather, wind, movement and condition of the ice in the River and Gulf of St. Lawrence up to Montreal for the guidance of any vessel calling for information.

BIRD ROCKS.

The Bird Rocks being no longer a Signal Station, it is very important however to have a record of the movement and foundation of ice in its neighbourhood, also on account of its being one of the best seal hunting centres in the Gulf, the following may prove interesting:—

January 11th to 14th.—Light slob ice formed outside and then disappeared until the 29th, when it remained until the end of the month, north-west wind.

February 1st to April 17th—Light open to closed packed ice was visible from the Island, but none after that date.

February 24th—A fox made its appearance near the lighthouse, having made its way over on the ice.

February 25th—A fox, presumably the same, was seen on the little Bird Rock.

March 4th to 14th and from the 17th to the 30th—Large shoals of seals, old and young were in full sight of here.

March 15th.—3 sealing steamers in sight.

March 16th.—1 sealing steamer in sight.

April 1st. and 2nd.—The Magdalen Islands, fleet of steamers near in sight off here.

April 3rd. and 4th.—Two shoals of seals off of here.

CAPE RAY, NEWFOUNDLAND.

February 9th., 1893.—First sign of ice which formed and remained in open form to the rest of the month west winds, clear, weather.

March.—Heavy open to close packed ice around the Cape all this month, north north-west winds. Snow fell on a few days only.

March 11th.—2 steamers and three schooners left for seals.

do 11th.—12 schooners sailed.

March 20th.—12 schooners sailed; one reported crushed in ice.

March 22nd.—8 schooners in ice.

do 24th.—11 do

do 25th.—5 do

do 26th.—8 schooners, 1 steamer in ice.

do 27th.—5 schooners in ice.

do 28th.—11 do

do 29th.—9 do

April 3rd.—7 do

do 4th.—9 do

do 5th.—7 do

do 6th.—6 do

do 7th.—16 do

do 8th.—7 do

April 1st.—Heavy close packed ice distant.

do 2nd.—No ice in sight.

do 3rd. to 8th.—Heavy close-packed ice distant, north north-west winds, clear weather. No ice seen after latter date.

WINTER NAVIGATION IN THE ST. LAWRENCE.

The steam wrecking schooner "Anna Magee," Captain Caouette, left for the Gulf to cruise along the north shore, and "Anticosti" left on 14th February, and returned to port on the 20th March, having had no trouble to get through the ice.

Marine and Fisheries.

A bateau was taken on 1st March from Quebec Etchemin, there loaded with deals, and within a few days delivered them on the commissioners' wharf. The river here being free of ice.

March 3rd.—The ss. "Newfoundland" being fitting out as a sealing vessel, left Halifax on this date for the inner gulf. Her catch was 12,000 seals.

March 17th.—The steam schooner "Diver," Captain Bejin, left for Grosse Isle.

April 11th and 12th.—Several schooners arrived up from below.

April 14th.—The tug "Dauntless" came out of winter quarters yesterday and moored at Crawford's wharf.

April 19th.—Ss. "Alert" out of winter quarters. The White Island Reef Light-ship came out of winter quarters.

1892—*Last Outward Bound Steamer.*

November 27th.—Ss. "Thames," Captain Couillard, passed out this day for sea.

1892—*Last Outward Sailing Vessel.*

November 24th.—The ship "Geo. L. Hay" was towed out this day bound for Buenos Ayres.

First Inland Bound Transatlantic Vessel.

The ss. "Charrington" from Messina, 26th March, passed Cape Ray at 6 p.m., Saturday, 15th April, passed Fame Point, 9.30 a.m., on the 18th, and arrived in port at noon on the 20th, met ice sixty miles south-east of Cape Ray and from latter place to thirty miles to the westward met none, then entered an extensive field of some fifty miles in extent.

The ss. "Fremona" from the Mediterranean passed Fame Point, at 3.30 p.m. of the 25th April, and arrived in port at 4 p.m., on the 27th instant. The captain reports met the first ice sixty miles south of Scatterie, forty miles north of Cape Ray, again met ice which continued up to the Bird Rocks.

SS. "Rydal-Holmes" from Barrow for Montreal, passed St. Paul's, 25th April, and arrived in port, 10 a.m., May 1st.

First Transatlantic Sailing Vessel to arrive.

The barque "H. G. Cann" from Liverpool, 4th April, arrived in port 5th May.

First Outward Transatlantic Steamer.

The Royal mail steamship "Labrador," Captain McAuley, cleared on 13th May, for Liverpool. This is seven days later than the ss. "Warwick" left last year.

Respectfully submitted,

H. J. McHUGH,
Inspector Signal Service.

APPENDIX A.

Report on ice, &c., in the Straits of Belle Isle, as noted by the agents of the Department at Belle Isle, Cape Bauld, Cape Norman, Forteau and Greenly Island from October, 1892, to June, 1893.

BELLE ISLE.

December 23rd, 1892.—First appearance of sheet ice, making for the Labrador shore. In 1891 the first ice was noticed on the 21st November.

The last vessel outward bound, a bark, passed on the 22nd November.

No icebergs were seen from here during November or December. As compared to the same month in other years, December was free from fog or icebergs, making the passing through the straits perfectly feasible. 29th December thin ice scattered to east and south. 30th December a good deal of thin ice scattered through the straits moving to the east.

North-north-west to south-west winds prevailed during the month.

Snow fell on the 15th and 25th of December only.

1st to 16th January mild, with snow; on the 6th and 12th rain and fog; on the 7th ice set in from the north-east.

17th January, temperature fell to 30° below zero and from this date to end of the month variable weather with a good deal of scattered ice.

Variable winds from north-west to east north-east, the ice drifting with the winds.

February.—This month proved very cold; the thermometer on the 17th instant showing 22° below zero. Ice made very fast; hummock ice appearing at times and extensive field ice on the 24th instant.

February 1st, 2nd and 20th.—Snow fell freely.

February 23rd.—Rain and sleet with a hurricane from the south-south-east.

February 28th.—Clear water along the Labrador shores, a light press of ice to the east, moving south, this appear to be Arctic ice there being a few icebergs among it.

The first part of the month west to north and north-west winds prevailed and during the latter part south-south-east-north.

March.

This month was of the average temperature, the thermometer having gone below zero in two days only the 22nd and 23rd, owing to various winds, ranging from north to east, south-south-west, south-west to south-east, the ice kept moving in and out of the Straits at a rate of from one knot to three knots.

March 11th and 12th.—SS. "Panther" lying to off Cape Bauld.

March 13th.—SS. "Panther" hauled off to the south-east.

March 19th and 25th.—Three schooners between here and Cape Bauld.

March 31st.—Sch. "Rose Clear," of Trinity Bay, Nfld., which left port on 4th March, called to get information about seals; strong to heavy winds and cold weather, had poor success, having caught but 70 seals.

March 25th.—A large number of seals noticed on the ice.

April.—Mild weather setting in although the thermometer went to 3° below on the 6th and 5° below on the 7th instant. A good deal of ice formed and covered the straits.

April 22nd.—The edge of the western ice visible above Cape Norman.

The winds continued to be variable, with snow on the 10th and 11th; fog and rain on the 28th instant.

Icebergs.

April 19th.—Sixteen large icebergs to the eastward, 30 miles off.

May.—A good deal of snow and rain fell this month. Temperature rising, and the prevailing winds being from the north-north-east to east-south-east. The straits were pretty well covered all this month with ice. Field and sheet ice disappearing on the 29th instant.

May 10th.—One schooner off White Lake.

May 25th.—One schooner off Cape Bauld.

May 27th.—Schooner "Beulah," from St. John's, Nfld., called and landed fishing crew.

May 5th.—One hundred and eight to the east.

May 8th.—Sixty-eight to the east.

May 9th.—Eighty-four to the east.

May 10th.—One hundred and forty scattered.

May 29th.—Sixty-five to the east.

Marine and Fisheries.

CAPE BAULD.

As stated in previous reports, the distance from Belle Isle being but 14 miles, the observations as to weather, wind, &c., vary but little.

The catch of seals at this place was, however, favourable, some being killed in December, 1892, January and February and March, 1893.

March 22nd.—Forty killed.

March 23rd.—Fifteen killed.

March 31st.—Eight hundred killed.

April 1st.—Two hundred killed.

June 1st.—Steamship "Panther" called.

June 27th.—One hundred schooners passed, going north to the Labrador fishing grounds.

June 29th.—One man-of-war passed at 1.30 p.m.

CAPE NORMAN.

November 13th.—First fall of snow, Labrador shore and hills covered. Snow again fell on the 17th and 30th.

The weather remained mild with prevailing winds from north-north-west to south.

Icebergs.

October 3rd, 1892.—One seen.

October 7th, 8th and 9th.—Two seen.

October 14th and 15th.—Five seen.

November, 1892.—Cold blustery weather, with wind from north-north-east all the month; snow fell during 11 days of this month. No icebergs were seen.

December, 1892.—As in the proceeding month, north-north-east bearing to south-east winds prevailed. Snow fell on 14 days of this month.

No icebergs seen, but on 19th December, a flock of over 50 seals were seen going east.

December 15th to 31st.—The straits were covered with ice, open to close packed, moving west.

January, 1893.—This proved a rough, cold and disagreeable month, winds ranging from south-west to east, north-east, and with the exception of eight days, snow fell every day.

The straits were covered with close-packed ice inshore and distant, extending westwards, all this month.

Icebergs.

January 23rd, 1893.—One seen.

January 24th.—Two seen.

February—With the exception of the 21st, 22nd and 23rd, when the straits were clear of ice, heavy close-packed ice kept along the shore north-north-west to north-east winds prevailing, and driving it to the eastwards. Snow fell during 14 days of this month.

Icebergs.

February 4th to 14th.—One in sight every day.

March.—Similar to February, with snow on nine days only, and rain on the 15th instant.

Icebergs.

March 5th to 13th and 22nd to 31st.—One seen each day.

March 20th.—Twenty-two seals killed.

March 30th.—A flock of seals amounting to thousands on the ice off here this day 300 were killed and landed.

March 31st.—Four seals killed.

April.—The straits open on the 29th only. The rest of the month as in the two proceeding ones snow fell on fourteen days south-east to south-west winds during the ice to the eastward.

Icebergs.

April 17th to 21st.—One in sight every day.

May 18th and 19th.—Straits free of ice all other days covered with open to close packed ice in shore and distant. In the early part of the month snow fell and rain towards the latter part, south-east winds.

Icebergs.

May 8, 1893.—21 seen
 May 9. —31 do
 May 10. —37 do
 May 11. —17 do
 May 12. —19 do
 May 13. —17 do
 May 14. —16 do
 May 15 to 27— 8 do daily.
 May 28. —20 do
 May 30. —13 do
 May 31. — 8 do

June.—Straits clearing rapidly of field ice, heading up and lakes visible all over. Snow fell on the 2nd instant and none after.

Icebergs.

June 1st to 23rd.—8 seen daily.
 June 24th to 31st.—52 seen daily.

FORTEAU.

November 11th, 1892.—First snow.

December 12th, 1892.—First slob ice making. The latter part of this month proved cold, slob and sheet ice formed fast along shore.

May 19th.—Last field ice seen. The general remarks as to weather, winds, ice, etc. at this station are partly similar to Cape Norman being almost opposite and this being the narrowest part of the straits.

GREENLY ISLAND.

October 18th, 1892.—First snow fall.

November and December.—Very little snow fell, weather, mild and clear. North to south-east winds, no ice.

January 8th, 1893.—First appearance of ice which increased rapidly and extended some ten miles out from shore remaining stationary all month. Weather moderate, west-south-west winds, snow fell on ten days in this month.

February, March, April and up to 8th May.—The ice remained as in January extending from six to ten miles from shore.

May 9th to June 18th.—North to north-east winds, no ice visible.

June 19th to 30th.—Heavy open ice all along shore, south to west winds.

Icebergs.

June 19th to 30th.—Three in sight daily, weather very foggy all this month, south and south-east wind most of the time, two steamers were seen off here going east.

Respectfully submitted,

H. J. McHUGH,
Inspector Signal Service.

Marine and Fisheries.

APPENDIX B.

THERMOMETER Readings at Belle Isle from January to June, 1893.

Date.	Degrees	Date.	Degrees	Date.	Degrees	Date.	Degrees
Jan. 1	10	Feb. 8	- 3	Mar. 18	16	April 25	29
do 2	20	do 9	- 5	do 19	12	do 26	36
do 3	34	do 10	19	do 20	16	do 27	29
do 4	30	do 11	23	do 21	27	do 28	34
do 5	14	do 12	- 5	do 22	- 6	do 29	27
do 6	30	do 13	15	do 23	-15	do 30	33
do 7	37	do 14	- 3	do 24	10	May 1	35
do 8	28	do 15	26	do 25	27	do 2	34
do 9	20	do 16	-10	do 26	14	do 3	38
do 10	19	do 17	-22	do 27	18	do 4	37
do 11	32	do 18	-18	do 28	14	do 5	38
do 12	29	do 19	- 5	do 29	14	do 6	34
do 13	25	do 20	24	do 30	26	do 7	33
do 14	24	do 21	31	do 31	20	do 8	34
do 15	13	do 22	21	April 1	24	do 9	32
do 16	26	do 23	34	do 2	26	do 10	32
do 17	- 3	do 24	28	do 3	29	do 11	37
do 18	-12	do 25	18	do 4	30	do 12	37
do 19	22	do 26	10	do 5	24	do 13	37
do 20	29	do 27	26	do 6	- 3	do 14	37
do 21	22	do 28	26	do 7	- 5	do 15	37
do 22	5	Mar. 1	20	do 8	24	do 16	37
do 23	7	do 2	19	do 9	26	do 17	37
do 24	14	do 3	29	do 10	29	do 18	37
do 25	10	do 4	20	do 11	30	do 19	37
do 26	12	do 5	16	do 12	29	do 20	37
do 27	25	do 6	19	do 13	30	do 21	39
do 28	28	do 7	16	do 14	27	do 22	34
do 29	18	do 8	24	do 15	28	do 23	38
do 30	29	do 9	20	do 16	30	do 24	39
do 31	20	do 10	12	do 17	30	do 25	40
Feb. 1	12	do 11	18	do 18	24	do 26	40
do 2	12	do 12	19	do 19	24	do 27	37
do 3	12	do 13	34	do 20	27	do 28	44
do 4	12	do 14	22	do 21	27	do 29	34
do 5	- 3	do 15	31	do 22	33	do 30	41
do 6	- 5	do 16	32	do 23	29	do 31	41
do 7	27	do 17	18	do 24	31		

Lowest temperature, 18th January ; highest, 7th January. Lowest temperature, 17th February ; highest, 23rd February. Lowest temperature, 23rd March ; highest, 13th March. Lowest temperature, 7th April ; highest, 29th April. Lowest temperature, 9th and 10th May ; highest, 28th May.

This sign (-) before figures denotes below zero.

(Signed) MICHAEL COLTON,
Light-keeper.

Respectfully submitted,

H. J. McHUGH,
Inspector, Signal Service.

APPENDIX

TELEGRAPH, SEMAPHORE AND SIGNAL
RIVER AND GULF
SOUTH SHORE OF THE

Signal Stations.	Telegraph Offices.	Lighthouse.	Flag Stations.	Semaphore Station.	Miles from Quebec.	Telegraph Co. Working Lines.
1 L'Islet	Tel. Office		Flag..		41	Great North-western Co.
2 Rivière du Loup	do	Lighthouse	do ..		95	do do
3 Father Point	do	do	do ..		157	do do
4 Little Métis	do	do	do ..		197	do do
5 Matane	do	do	do ..			do do
6 Cape Chatte	do	do	do ..		230	do do
7 Martin River	do	do	do ..		255	do do
8 Cape Magdalen	do	do	do ..		288	do do
9 Fame Point	do	do	do ..		318	do do
10 Cape Rosier	do	do	do ..		339	do do
NORTH SHORE OF THE						
11 Port Neuf	Tel. Office	Lighthouse	Flag..		145	Dom. Govt. and G.N.W. Co.
12 Manicouagan	do		do ..		187	do do ..
13 Pointe de Monts	do	Lighthouse	do ..		224	do do ..
GASPE COAST						
14 Cape Despair	Tel. Office	Lighthouse	Flag..		372	Great North-western Co.
15 Pointe Maquereau	do	do	do ..		394	do
COAST OF NEW						
16 Point Escuminac	Tel. Office	Lighthouse	Flag..		450	Dom. Govt. and G.N.W. Co.
ISLAND OF						
17 West Point	Tel. Office	Lighthouse	Flag..		328	Dom. Govt. and G.N.W. Co.
18 South-West Point	do	do	do ..		358	do do ..
19 South Point	do	do	do ..		408	do do ..
20 Heath Point	do	do	do ..		428	do do ..
MAGDALEN						
21 Grosse Isle	Tel. Office	Lighthouse	Flag..		467	D. Govt., W. U. & G.N.W. Co.
22 Amherst Island	do	do	do ..		471	do do ..
CAPE BRETON,						
23 Meat Cove	Tel. Office	Lighthouse	Flag..		529	D. Govt., W. U. & G.N.W. Co.
24 Low Point	do	do	do ..	Semaphore.	575	do do ..
ST. PAUL'S						
25 Main Station	Telephone	Lighthouse	Flag..		528	D. Govt., W. U. & G.N.W. Co.
NEWFOU						
26 Cape Ray	Tel. Office	Lighthouse	Flag..		542	D. Govt., Anglo-Amer. Cable Co., W. U. & G.N.W. Co. ...

Marine and Fisheries.

C.

STATIONS, MARINE DEPARTMENT, CANADA.

OF ST. LAWRENCE.

RIVER ST. LAWRENCE.

Rate per ten words and additional words.	Date when established.	Name of Agent.	Post Office.	County.	Province.	Salary per annum from Marine Dept.
25c. & 1c.	Oct. 28, '79.	Mrs. J. B. E. Fortin	L'Islet	L'Islet	Que.	\$50
do	Nov. 16, '81.	L. T. Piuze	Rivière du Loup (en bas)	Temiscouata	do	50
do	Nov. 22, '79.	John McWilliams	Father Point	Rimouski	do	50
do	Nov. 17, '79.	Jules Martin	Little Métis	do	do	50
do	Nov. 5, '79.	P. Desjardins	Matane	do	do	50
do	Sept. 19, '79.	Treflé Côte	Cape Chatte	Gaspé	do	50
do	Sept. 23, '79.	Jean Gauthier	Martin River	do	do	50
do	Oct. 9, '79.	J. F. Sasseville	Cape Magdalen	do	do	50
do	Oct. 14, '80.	James Ascah	Fox River	do	do	50
do	Oct. 20, '79.	E. Costin	Cape Rosier	do	do	50

RIVER ST. LAWRENCE.

40c. & 2c.	June 1, '83.	Dorelas Tremblay	Port Neuf (en bas)	Saguenay	Que.	\$50
do	Aug. 15, '83.	E. Lawson	Manicouagan	do	do	
do	Oct. 19, '83.	V. Faffard	Pointe de Monts	do	do	50

OF THE GULF.

25c. & 1c.	June 17, '80.	James Beck	Cape Despair	Gaspé	Que.	\$50
do	May 22, '80.	Auguste Bertrand	Port Daniel	do	do	50

BRUNSWICK.

40c. & 2c.	July 2, '85.	K. McLennan	Point Escuminac	Northumberland	N. B.	
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ANTICOSTI.

75c. & 6c.	Oct. 1, '81.	Auguste Malouin	Anticosti Id. <i>via</i> Gaspé	Gaspé	Que.	
do	Oct. 18, '80.	E. Pope	do	do	do	
do	July 27, '81.	Jean Nadeau	do	do	do	
do	July 20, '81.	Z. Gagné	do	do	do	

ISLANDS.

\$1.00 & 8c.	Aug. 17, '80.	A. Le Bourdais	Magdalen Id. <i>via</i> Pictou.	Gaspé	Que.	
do	June 11, '81.	William Cormier	do N.S.	do	do	

NOVA SCOTIA.

55c. & 3c.	Nov. 7, '81.	A. R. MacDonald	Meat Cove, C. B.	Victoria	N. S.	
30c. & 2c.	Aug. 1, '81.	J. G. Peters	Low Point, C. B.	Inverness	do	\$50

ISLAND.

80c. & 5c.	1890	S. C. Campbell	North Sydney, C. B.	Victoria	N. S.	
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NDLAND.

\$1.05 & 10c.	Nov. 3, '82.	E. R. Rennie	Cape Ray	Newfoundland	Nfld.	\$50
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H. J. McHUGH, *Inspector, Signal Service.*

APPENDIX No. 8.

LIVE STOCK SHIPMENTS.

RECORD of Live Stock shipped from Port of Montreal during 1893.

Number.	Date.	Steamers.	Destination.	SHEEP.		CATTLE.			HORSES.		SWINE.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.	Shipped.	Lost.	Shipped.				Lost.
	1893.														
1	May	Lake Huron.	Liverpool.			462		462					101,700	28,650	17
2	do	Pickhuben.	London.			398		398	2				88,950	40,250	15
3	do	Lake Winnipeg	Liverpool.			518		518					125,820	42,320	18
4	do	Brazilian.	London.			402		402					102,830	38,290	14
5	do	Mongolian.	Liverpool.	101		534		534	1				114,530	42,960	22
6	do	Tritonia.	Glasgow.			712		712					141,452	63,060	30
7	do	Toronto.	Liverpool.			396		396	2				90,110	35,680	15
8	do	Texas.	Bristol.			349		349					81,110	31,000	13
9	do	Sarmatian.	Glasgow.			608		608	1				136,860	68,000	31
10	do	Storm King	London.			451		451		1			106,060	39,150	18
11	do	Amarynthia	Glasgow			604		604	1				106,760	44,150	25
12	do	Fremona.	London.			451		451	1				115,090	45,000	19
13	do	Laurentian	Liverpool.			581		581					124,890	57,795	22
14	do	Lake Superior	do			568		568		32			124,740	48,590	23
15	do	Stubbenhuk	London.			390		390					91,660	34,550	15
16	do	Hibernia.	Glasgow.			375		375					84,640	31,935	17
17	do	Dracona.	Bristol			150		150					10,090	10,090	6
18	do	Rosaron.	London.			474		474					39,800	40,205	19
19	do	Alcides	Glasgow.			536		536					115,640	40,205	19
20	do	State of Georgia.	Deptford.			337		337		20			101,740	44,945	21
21	do	Barrowmore	Liverpool.			698		698					90,630	45,700	13
22	do	European	Newcastle			387		387					173,020	72,150	28
23	do	Sicilia.	Bristol			324		324					99,410	34,180	15
24	do	Sarmia.	Liverpool.			357		357					73,800	32,175	13
25	do	Lake Nepigon,	do			334		334					75,470	29,620	14
26	do	Buenos Ayrean	Glasgow.			679		679	1				29,079	60,320	29
27	do	Hestia	do			621		621					153,675	51,764	19
28	do	Montevidean	London.			454		454					129,755	45,560	15
29	do	Domintion	Bristol			411		411					115,620	45,560	19
30	do												88,200	39,620	16

Marine and Fisheries.

30	do	30	Augerton.....	Liverpool.....	178	.....	178	.....	3	56	.....	60,515	20,126	9
31	do	31	Lake Ontario.....	do	550	.....	550	1	11	00	.....	117,210	53,400	28
32	do	31	Baumwell.....	London.....	396	.....	396	.....	7	42	.....	98,370	34,340	15
33	do	31	Pomeranian.....	Glasgow.....	651	.....	651	.....	13	02	.....	147,100	58,464	25
			Total, May.....		15,386	.....	15,386	.....	306	72	.....	3,490,865	1,387,119	617
			Corresponding period in 1902.....		16,287	424	16,711	38	334	22	511	.....	.....	670

Value of hay, \$12 per 2,000 lbs.		Value of grain, \$25 per 2,000 lbs.												
34	June	1	Escalona.....	London.....	330	.....	330	.....	6	60	.....	81,750	33,750	13
35	do	1	Avlona.....	Newcastle	330	.....	330	.....	6	60	.....	101,580	28,180	13
36	do	2	Andrani.....	Liverpool	650	.....	650	.....	.....	.....	5	133,150	58,500	23
37	do	3	Numidian.....	do	580	.....	580	.....	11	60	.....	132,000	51,000	23
38	do	3	Iona.....	London.....	561	.....	560	1	11	22	.....	144,920	56,310	22
39	do	6	Canopus.....	Liverpool	512	10	522	.....	10	44	.....	186,720	64,980	22
40	do	6	Oregon.....	do	450	.....	450	.....	9	00	.....	102,224	34,510	17
41	do	6	Slavonia.....	London.....	121	.....	121	.....	.....	.....	46	32,670	11,616	5
42	do	7	Manitoba.....	Liverpool	317	.....	317	.....	6	34	.....	109,959	27,650	17
43	do	8	Warwick.....	Glasgow	450	.....	450	.....	13	80	.....	107,600	26,570	16
44	do	8	Lake Huron.....	Liverpool	690	.....	690	.....	10	00	.....	147,630	62,300	20
45	do	8	Wentmore.....	do	500	.....	500	.....	10	00	.....	125,220	60,070	20
46	do	9	Austrian.....	London.....	372	.....	372	.....	7	44	.....	93,000	37,200	14
47	do	11	Toronto.....	Liverpool	514	.....	514	.....	.....	.....	39	109,200	47,530	21
48	do	14	Carthaginian.....	Glasgow	400	.....	400	2	8	00	.....	98,000	42,000	18
49	do	14	British Crown.....	London.....	584	.....	589	2	11	78	.....	183,520	57,560	22
50	do	14	Lake Winnipeg.....	Liverpool	592	5	592	.....	11	84	.....	131,845	48,150	25
51	do	15	Concordia.....	do	510	.....	510	.....	10	20	.....	139,000	46,150	20
52	do	16	Texas.....	Bristol	385	.....	385	.....	11	55	.....	95,630	36,060	14
53	do	16	Tritonia.....	Glasgow	552	.....	552	.....	16	56	.....	141,955	49,790	25
54	do	17	Mongolian.....	Liverpool	624	.....	624	.....	18	72	.....	186,670	64,380	23
55	do	17	Brazilian.....	London.....	493	.....	493	.....	14	79	.....	123,630	60,740	19
56	do	17	Gerona.....	do	501	.....	501	.....	15	03	.....	123,620	50,300	20
57	do	17	California.....	do	252	.....	252	.....	7	56	.....	69,738	22,500	10
58	do	21	Sarmatian.....	Glasgow	627	.....	627	.....	18	81	.....	155,480	56,430	26
59	do	21	Lake Superior.....	Liverpool	582	.....	582	.....	17	46	.....	134,090	57,230	23
60	do	21	Gristol.....	Bristol	189	.....	189	.....	5	67	.....	56,710	18,800	7
61	do	22	Amarynthia.....	Glasgow	625	.....	625	.....	18	75	.....	140,000	52,070	24
62	do	25	Rosarian.....	London.....	483	.....	483	.....	14	49	.....	114,563	43,470	19
63	do	25	Sarmia.....	Liverpool	297	.....	297	.....	8	91	.....	70,200	27,590	12
64	do	25	Memnon.....	London.....	298	18	298	.....	9	12	.....	87,590	32,750	12
65	do	25	Norse King.....	do	222	.....	222	.....	6	66	.....	60,730	22,300	9
66	do	27	Pickhuben.....	do	400	.....	400	.....	12	00	.....	101,000	40,000	15
67	do	27	Oxenholme.....	Liverpool	168	.....	168	.....	5	04	.....	39,000	16,800	6
68	do	27	Barrowmore.....	do	697	.....	697	.....	20	91	.....	183,080	65,230	27
69	do	28	Buenos Ayrean.....	Glasgow	169	.....	169	.....	5	07	70	38,025	15,210	11

RECORD of Live Stock Shipped from Port of Montreal during 1893—Continued.

Number.	Date.	Steamer.	Destination.	SHEEP.		CATTLE.				HORSES.		SWINE.		Hay for Feed.	Grain. for Feed.	Number of Men.	
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.	Fees Collected.	Shipped.	Lost.	Shipped.				Lost.
1893.																	
70	June 28.	Lake Nepigon	Liverpool	99		331		331		10 92				77,750	32,780	13	
71	do 28.	Storm King	London.			451		451		13 53				124,680	44,890	17	
72	do 29.	Virginian	Liverpool			724		724		21 72				183,870	56,620	32	
73	do 30.	Aldes	Glasgow			506		506		15 15	45			126,365	48,965	18	
		Totals June		117		18,038	15	18,053		459 98	276			4,515,264	1,634,751	722	
		Reported 31st May.		101		15,336		15,336		306 72	236			3,490,865	1,387,119	617	
		Totals May & June.		218		33,374	15	33,389		764 70	572			8,006,129	3,021,870	1,334	
		Corresponding date for 1892.		1,544		33,344	1,767	35,111	59	702 22	932					1,391	
74	July 1.	Laurentian	Liverpool			542		542	2	16 26				119,600	47,700	21	
75	do 1.	Sicilian	Bristol			251		251		7 53				57,800	25,040	10	
76	do 1.	Fremosa	London.			450		450	1	13 50				122,950	45,490	18	
77	do 2.	Baltimore	Liverpool	94		304		304		10 66				89,640	34,240	12	
78	do 2.	Memphis	London.			588		588		17 04				149,330	60,230	21	
79	do 4.	Polario.	do			195		195		5 85				50,750	19,550	7	
80	do 4.	State Georgia.	do	70		330		330		10 60				98,600	33,700	16	
81	do 5.	Lake Ontario.	Liverpool			225		225		6 75				50,150	20,470	9	
82	do 5.	Pomeranian	Glasgow			423		423		12 69	43			104,570	36,500	19	
83	do 6.	Dracona	London.			160		160		4 80				48,980	15,090	6	
84	do 6.	Hestia	Glasgow			384		384		11 52				78,714	36,560	15	
85	do 8.	Dominion.	Bristol			312		312		9 36				76,830	31,230	12	
86	do 8.	Numidean	Liverpool			420		420	4	12 60				92,650	37,910	17	
87	do 9.	Oregon	do			200		200		6 00				43,160	20,060	8	
88	do 9.	Montevidean.	London.			100		100		3 00				23,850	9,000	5	
89	do 11.	Staubenhuk.	do			393		393		11 79	18			99,770	40,160	15	
90	do 12.	Lake Huron.	Liverpool	74		354		354		11 36				79,420	32,600	15	
91	do 13.	Iona	London.			572		572		17 10				141,680	56,430	23	
92	do 13.	Indrani.	Glasgow			362		362		10 86	56			107,300	44,000	15	
93	do 14.	Avlona.	Newcastle			165		165		4 95				50,620	12,580	6	
94	do 15.	Escalona.	London.			154		154		4 62				50,650	15,140	6	

Marine and Fisheries.

95	do	16	Toronto.....	303	303	9 09	71,090	26,710	13
96	do	19	Lake Winnipeg.....	341	241	7 23	33,040	20,300	10
97	do	19	Grimu.....	163	163	4 89	40,750	16,350	6
98	do	19	Manitoba.....	116	116	3 48	26,030	10,030	6
99	do	19	Austrian.....	181	181	5 43	44,120	17,880	7
100	do	20	Texas.....	122	122	3 66	26,260	10,510	5
101	do	20	Tritonia.....	52	52	1 56	13,000	5,200	4
102	do	21	Wentmore.....	230	230	6 90	57,500	20,700	12
103	do	22	Hurona.....	270	270	8 10	68,970	23,440	10
104	do	22	European.....	184	184	5 85	50,690	16,090	7
105	do	22	Mongolian.....	293	293	8 79	68,000	26,350	12
106	do	23	Warwick.....	188	188	5 64	47,000	18,000	8
107	do	24	Lake Nepigon.....	*318	318	10 48	76,090	31,900	13
108	do	26	Lake Superior.....	415	415	13 29	97,030	38,060	16
109	do	26	Siberian.....	256	256	7 68	72,770	27,460	13
110	do	26	Canopus.....	293	293	8 79	77,770	27,370	13
111	do	27	Amarnythia.....	245	245	7 35	61,250	22,050	9
112	do	27	Brazilian.....	282	282	8 46	33,880	12,740	12
113	do	29	Pevertl.....	244	244	7 32	71,470	33,510	9
114	do	29	Concordia.....	207	207	6 21	32,750	19,000	8
115	do	30	Sarmia.....	302	302	9 06	61,020	27,290	12
116	do	30	Gerona.....	312	312	9 36	82,070	28,770	11
117	do	30	Mexico.....	263	263	7 89	66,400	23,600	10
			Reported June 30, 1893.....	449	12,364	375 41	3,055,754	1,177,060	502
				218	33,374	761 70	8,006,129	3,081,870	1,339
			Corresponding date 1892.....	667	45,738	1,140 11	11,061,883	4,258,930	1,841
				12,783	49,632	1,091 82			
118	Aug.	2	Sarmatian.....	446	446	13 38	105,600	35,460	20
119	do	2	Barrawmore.....	394	394	11 82	76,430	28,250	16
120	do	2	British Crown.....	291	291	8 73	87,300	30,000	11
121	do	2	Mariposa.....	214	214	6 42	47,580	19,180	9
122	do	5	Laurentian.....	570	570	17 10	132,230	51,850	23
123	do	5	Rosarian.....	395	395	11 85	112,970	35,550	16
124	do	5	Ovenholm.....	446	446	13 68	112,630	40,400	18
125	do	6	Norse King.....	470	470	14 55	124,100	40,450	19
126	do	8	California.....	253	253	7 59	63,500	25,300	10
127	do	9	Lake Ontario.....	571	571	17 13	128,270	48,980	22
128	do	9	Ruenos Ayrean.....	450	450	13 50	91,865	40,500	19
129	do	10	Sicelia.....	324	324	9 72	77,800	29,420	14
130	do	10	Hestia.....	384	384	11 52	96,714	39,050	19
131	do	10	Virginian.....	730	730	21 90	178,710	63,410	29
132	do	11	Memmor.....	369	369	9 27	80,260	27,140	11

* Animals were returned after being ashore and were re-shipped. See No. 70, June 28, Dec. 8.

RECORD of Live Stock shipped from Port of Montreal during 1893—Continued.

Number.	Date.	Steamer.	Destination.	SHEEP.		CATTLE.			HORSES.		SWINE.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.	Shipped.	Lost.	Shipped.				Lost.
133	Aug. 11.	Storm King.	London.			450		450					118,992	40,220	18
134	do 12.	Nunidian.	Liverpool			383		383					85,670	34,640	14
135	do 13.	Oregon.	do			270		270					59,890	31,520	11
136	do 15.	Briscoe.	London.			172		172					55,690	15,080	7
137	do 15.	Pickhuben.	do			400		400					100,000	32,000	15
138	do 16.	Baltimore.	Liverpool			400		400					101,800	36,260	16
139	do 16.	Pomeranian.	Glasgow.			273		273			10		59,720	24,750	12
140	do 17.	Indran.	do			362		362					78,714	33,280	14
141	do 17.	Fremona.	London.			253		253					63,850	20,850	10
142	do 17.	Montevidean.	do			385		385					92,040	30,910	15
143	do 17.	Lake Huron.	Liverpool			424		424					93,910	33,060	16
144	do 17.	Dominion.	Bristol			146		146					34,960	12,650	6
145	do 17.	State of Georgia.	Newcastle			337		337					86,870	27,845	15
146	do 19.	Dracona.	Bristol			160		160					40,370	14,480	6
147	do 20.	Iona.	London.			552		552					138,280	38,320	22
148	do 20.	Toronto.	Liverpool			374		374					82,880	29,200	16
149	do 22.	Polarie.	Newcastle			232		232					60,320	19,880	9
150	do 23.	Lake Winnipeg.	Liverpool			406		406					90,905	32,920	15
151	do 24.	Tretonia.	Glasgow			257		257			61		71,110	22,893	12
152	do 24.	Manitoban.	do			179		179			25		45,160	16,300	8
153	do 26.	Mongolian.	Liverpool			334		334			9		81,410	37,954	14
154	do 27.	Austrian.	London.			210		210					53,290	19,020	8
155	do 27.	Texas.	Bristol			300		300					68,300	24,270	12
156	do 30.	Subbentuk.	London.			240		240					66,150	13,500	9
157	do 30.	Siberian.	Liverpool			289		289					65,100	21,600	14
158	do 30.	Lake Superior.	Glasgow			554		554					131,460	40,590	23
159	do 31.	Hurona.	London.			554		554					137,900	49,690	22
		Shipped in August.				45		45					3,680,792	1,308,622	615
		Reported: July 31, '93				667		667					11,061,883	4,258,980	1,841
		Total to date.				712		712					14,742,675	5,567,552	2,456
		Same date, 1892.				15,703		15,703							
						25		25							
						60,886		60,886							
						74,612		74,612							
						1,492 24		1,492 24							
						1,583 05		1,583 05							
						832		832							
						291		291							
						452 94		452 94							
						1,140 11		1,140 11							
						41		41							
						15		15							
						10		10							

Marine and Fisheries.

160	Sept.	1	Amarnythia.....	341	.....	341	10 23	2	.....	.....	86,250	27,280	13
161	do	2	Brazilian.....	260	.....	260	7 80	.....	.....	.....	66,100	21,000	10
162	do	3	Wentmore.....	234	.....	234	7 02	.....	.....	.....	58,028	21,048	9
163	do	3	Mexico.....	260	.....	260	7 80	.....	.....	.....	66,310	23,700	11
164	do	5	Grimm.....	370	.....	370	11 10	.....	.....	.....	96,200	17,568	15
165	do	6	Sarmatian.....	232	.....	232	6 96	28	.....	.....	60,715	21,920	12
166	do	7	Mariposa.....	210	.....	210	6 30	.....	.....	.....	48,750	14,950	9
167	do	7	Kent.....	100	.....	100	3 00	1	.....	.....	8,000	27,500	4
168	do	7	Gerona.....	507	1	507	15 21	.....	.....	.....	127,140	42,930	21
169	do	7	Warwick.....	188	.....	188	5 64	.....	.....	.....	43,880	16,950	8
170	do	9	Laurentian.....	292	.....	292	8 76	.....	.....	.....	65,160	23,580	12
171	do	11	Rosarian.....	92	.....	92	2 76	34	.....	.....	25,730	8,410	4
172	do	13	Lake Ontario.....	345	.....	345	10 35	.....	.....	.....	77,570	23,400	13
173	do	13	Hestia.....	304	.....	304	9 12	22	.....	.....	67,250	29,960	11
174	do	13	Buenos Ayrean.....	336	.....	336	10 08	18	.....	.....	77,940	26,040	15
175	do	15	Canopus.....	277	.....	277	8 31	.....	137	.....	72,090	34,600	14
176	do	15	Memphis.....	54	.....	54	1 62	.....	.....	.....	15,380	4,880	2
177	do	16	Nunmidean.....	288	.....	288	8 64	.....	.....	.....	64,240	25,890	11
178	do	17	Oregon.....	127	.....	127	3 81	.....	.....	.....	27,570	11,450	5
179	do	20	Lake Huron.....	471	.....	471	14 13	.....	.....	.....	106,070	19,000	19
180	do	20	Hibernian.....	389	.....	389	11 67	.....	.....	.....	93,290	34,370	18
181	do	20	Sicilia.....	101	.....	101	3 03	.....	.....	.....	26,760	10,010	4
182	do	21	Indrani.....	388	.....	388	11 64	.....	.....	.....	101,638	34,680	15
183	do	24	Toronto.....	340	.....	340	12 13	.....	.....	.....	84,300	36,710	15
184	do	26	State of Georgia.....	241	.....	241	7 23	.....	.....	.....	60,650	22,736	9
185	do	27	Lake Winnipeg.....	505	.....	505	15 15	.....	.....	.....	126,970	14,600	20
186	do	27	Montevidean.....	480	.....	480	14 40	.....	.....	.....	121,735	19,680	22
187	do	28	Dominion.....	160	.....	160	4 80	.....	.....	.....	40,460	14,400	6
188	do	28	Manitoban.....	359	.....	359	10 79	11	.....	.....	90,314	33,290	17
189	do	29	Tretonia.....	482	.....	482	14 46	42	.....	.....	120,500	43,380	21
190	do	30	Virginian.....	446	.....	446	13 38	.....	.....	.....	117,900	35,040	17
191	do	30	Iona.....	526	.....	526	15 78	.....	.....	.....	131,500	29,000	20
				9,705	283 08	9,705	.....	187	.....	.....	2,395,900	750,342	402
Reported Aug. 31, '93				60,811	1,593 05	60,836	48	1,123	.....	.....	14,742,675	5,567,552	2,456
				70,516	.....	70,541	.....	1,310	.....	.....	17,138,575	6,317,894	2,838
Same date, 1892.				70,601	16,276	86,877	171	1,737 54	.....	.....	.....	.....	.....

Record of Live Stock shipped from Port of Montreal, during 1893—Concluded.

Number.	Date.	Steamer.	Destination.	SHEEP.		CATTLE.			HORSES.		SWINE.		Hay for Feed.	Grain for Feed.	Number of Men.	
				Shipped.	Lost.	Par.	Stockers.	Total.	Lost.	Shipped.	Lost.	Shipped.				Lost.
	1893.															
192	Oct. 1.	Fremona	London.			458		458					132,350	40,660	18	
193	do 4.	Siberian	Glasgow.			488		488					121,090	44,180	20	
194	do 4.	Austrian	London.			276		276	23				82,010	27,600	10	
195	do 4.	Lake Superior	Liverpool	139	2	377		377					90,970	50,330	16	
196	do 5.	Amarynthia	Glasgow.			250		250	1				62,500	22,000	9	
197	do 6.	Texas.	Bristol.			137		137					36,720	12,320	6	
198	do 8.	Hurona	London.			763		763	4				218,000		30	
199	do 8.	Sarnia	Liverpool	106		291		291					73,750	27,030	13	
200	do 10.	Brazilian	London.			455		455					139,794	13,970	18	
201	do 11.	Pomeranian	Glasgow.			415		415	47				114,540	24,690	15	
202	do 11.	Lake Nepigon	Liverpool			334		334	1				100,000		13	
203	do 12.	Warwick	Glasgow.			188		188					56,400		8	
204	do 14.	Laurentian	Liverpool			579		579	1				130,275	40,530	22	
205	do 15.	Hestia	Glasgow.			365		365	1				134,666	10,130	14	
206	do 17.	Gerona	London.			785		785	14				233,500		31	
207	do 18.	Lake Ontario	Liverpool			346		346	1				103,800		13	
208	do 18.	Mexico.	Bristol.			313		313	9				81,450	27,970	12	
209	do 19.	Sarmatian	Glasgow	27		661		661	3				194,550	30,000	25	
210	do 21.	Numidean.	Liverpool			428		428					12,400		16	
211	do 22.	Oregon	do			253		253					63,120	22,600	10	
212	do 25.	Lake Huron	do	335		635		635					173,640	17,910	26	
213	do 26.	Indrani.	Glasgow			397		397					129,100	4,000	16	
214	do 26.	Rosarian	London.			181		181	35				53,791	5,850	8	
215	do 31.	Toronto	Liverpool	269		339		339	47				96,106	25,850	15	
216	do 31.	Canopus	do			240		240					66,000	16,800	12	
		Total for October		876		9,954		9,954	307				2,818,522	464,400	396	
		Previously reported.		905		70,541		70,541	1,886				17,136,57	6,317,894	2,858	
		Total to date.		1,781		80,470		80,495	2,193				19,957,097	6,782,294	3,254	
		Corresponding period last year.		15,914		76,393		35,192	608				1,262			

APPENDIX No. 9.

STATEMENT relating to the Wharfs under the control of the Department, on
30th June, 1893.

(Rules established for the government of wharfs, 12th June, 1889.)

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration Allowed.	Amount deposited to credit of Receiver General.
<i>Ontario.</i>				\$ cts.
Cockburn Island	Alfred Monck	May 30, 1889.	25 p.c. of collections	42 86
Goderich	Vacant			
Inverhuron	do		25 p.c. of collections	
Kingsville	S. A. King	May 5, 1890.	25 do	68 44
Morpeth	Thos. McCallum	Aug. 25, 1891.	25 do	
Rondeau	W. R. Fellowes	Dec. 17, 1888.	25 do	47 59
Sault Ste. Marie	W. H. Plummer	Jan. 2, 1890.	\$100 per annum do	491 69
Southampton	James Johns	Oct. 31, 1892.	25 p.c. of collections	3 66
Summerstown	Don Ward	June 4, 1891.	25 do	
Wiarton	H. R. A. Ely	Dec. 10, 1890.	25 do	161 49
<i>Quebec.</i>				
Agnes	L. A. Roy	Nov. 27, 1891.	25 p.c. of collections	
Anse St. John	J. Desgagne	June 10, 1893.	25 do	
Baie St. Paul	C. Bouchard	Aug. 25, 1891.	25 do	
Baie St. Paul, Isolated Block	A. Simard	Aug. 25, 1891.	25 do	
Beauport	Felix Guillot	Nov. 21, 1891.	25 do	
Berthier	J. B. Mercier	Jan. 11, 1893.	25 do	
Carleton	Jos. Cauchon	June 4, 1889.	\$50 per annum	70 89
Cascades	Nereé Moreau	Aug. 20, 1892.	25 p.c. of collections	
Chicoutimi	Juste Ouellette	May 2, 1893.	25 do	71 50
Grand River	John Carberry	Sept. 23, 1892.	25 do	106 20
Isle aux Grues	Jos. Painchaud	Feb. 17, 1890.	25 do	
Lacolle	Vacant		25 do	2 00
Les Eboulements	C. Tremblay	June 2, 1893.	25 do	
L'Islet	Octave Morin	Feb. 8, 1893.	25 do	
Longueuil	D. Brissette	Mar. 23, 1893.	25 do	
Murray Bay	Vacant			
New Carlisle	John C. Hall	June 4, 1889.	25 p.c. of collections	253 38
Percé	T. W. Flynn	Jan. 19, 1893.	25 do	
Port Daniel	John Enright	Sept. 11, 1890.	\$50 per annum	124 75
Rivière Ouelle	J. H. dit Beaulieu	Nov. 28, 1892.	25 p.c. of collections	
Rivière du Loup	Louis Pinze	Sept. 16, 1891.	25 do	62 06
St. Alphonse de Bagotville	Abel Tremblay	July 7, 1891.	25 do	
St. Jean d'Orléans	Chas. Langlois	Dec. 16, 1892.	25 do	
Ste. Cécile du Bic	L. N. Cote	July 20, 1891.	25 do	
Tadoussac	A. Christiansen	July 7, 1891.	25 do	42 75
Trois Pistoles	Nap. Rioux	Sept. 16, 1891.	25 do	
St. Thomas de Montmagny	Eug. Hamond	May 20, 1892.	25 do	
<i>Nova Scotia.</i>				
Arisaig	John McInnis	Aug. 27, 1892.	25 p.c. of collections	
Avonport	Robert Shaw	Nov. 23, 1888.	25 do	
Barrington	S. W. Crowell	Aug. 12, 1891.	25 do	246 91
Bayneld	Edward Randall	Aug. 25, 1888.	25 do	
Belliveau's Cove	St. Clair Thériéau	Nov. 24, 1892.	25 do	115 00
Broad Cove	John Teal	June 12, 1893.	25 do	

Marine and Fisheries.

STATEMENT relating to Wharfs, &c.—*Concluded.*

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration Allowed.	Amount deposited to credit of Receiver General.
<i>Nova Scotia—Conclude l.</i>				\$ cts.
Broad Cove Marsh.....	Hugh McDonald.....	Oct. 19, 1892.	25 p. c. of collections.....	
Brooklyn.....	F. T. Gardiner.....	Oct. 20, 1882.	20 do.....	
Canada Creek.....	C. E. Eaton.....	Nov. 23, 1888.	25 do.....	
Cape Cove.....	M. A. Doucette.....	Dec. 7, 1891.	25 do.....	62 23
Centreville.....	W. M. B. Dakin.....	Aug. 25, 1888.	25 do.....	48 00
Chipman's Brook.....	Jas. Misaner.....	Nov. 23, 1888.	25 do.....	21 51
Church Point.....	Chas. F. Belliveau.....	Aug. 20, 1892.	25 do.....	85 59
Cow Bay.....	Arch. McKinnon.....	Apr. 13, 1879.	7½ do.....	2,044 51
Cranberry Head.....	Abram Thurston.....	Feb. 16, 1889.	25 do.....	
Delap's Cove.....	R. W. McCaul.....	Nov. 28, 1889.	25 do.....	
Digby.....	H. B. Short.....	Jan. 9, 1891.	25 do.....	560 15
Eagle Head.....	Nathan Leslie.....	do 9, 1889.	25 do.....	
East Bay.....	Donald McInnis (Ronald's son).....	Apr. 5, 1886.	50 do.....	
East River, Sheet Harbour.....	Malcolm McFarlane.....	May 20, 1890.	25 do.....	31 47
Grand Narrows, Victoria Co.	John P. McNeill.....	Aug. 25, 1888.	25 do.....	
Grand Narrows, Cape Breton Co.	E. A. McNeill.....	Nov. 6, 1888.	25 do.....	
Hall's Harbour.....	Sydney Roscoe.....	do 23, 1888.	25 do.....	
Hampton.....	Judson Foster.....	Aug. 25, 1888.	25 do.....	17 57
Harbourville.....	C. O. Cook.....	Nov. 23, 1888.	25 do.....	44 09
Irish Cove.....	John Cash.....	Sept. 17, 1892.	25 do.....	
Maitland, Hants Co.....	C. S. Stuart.....	Sept. 5, 1888.	25 do.....	103 25
Maitland, Yarmouth Co.....	J. W. Raymond.....	Apr. 14, 1890.	25 do.....	42 75
Margaretsville.....	T. J. Downie.....	Aug. 25, 1888.	25 do.....	75 58
Meteghan Cove.....	H. F. Deveau.....	Sept. 15, 1888.	25 do.....	73 70
Meteghan River.....	Urbain Doucette.....	Jan. 3, 1883.	20 do.....	175 32
Militia Point.....	D. McIntosh.....	Aug. 20, 1892.	25 do.....	
Morden.....	Wm. Minnis.....	Nov. 23, 1888.	25 do.....	35 15
Oak Point.....	Vacant.....			200 00
Ogilvia.....	R. S. Armstrong.....	Nov. 23, 1888.	25 do.....	
Parrsboro'.....	Thompson Tipping.....	do 26, 1888.	25 do.....	
Pickett's Wharf.....	Andrew Bishop.....	Dec. 24, 1884.	25 do.....	73 08
Plympton.....	Wm. Smith.....	Aug. 8, 1890.	25 do.....	
Point Brule.....	David Stevenson.....	Nov. 23, 1888.	25 do.....	
Port George.....	R. G. Anderson.....	Oct. 14, 1892.	25 do.....	88 16
Port Greville.....	Geo. Hatfield.....	Feb. 17, 1893.	25 do.....	
Port Hood.....	A. V. McDougald.....	May 17, 1892.	25 do.....	159 97
Port Lorne.....	Samuel Beardsley.....	Aug. 25, 1888.	25 do.....	49 19
Salmon River.....	J. M. Deveau.....	Nov. 25, 1890.	25 do.....	
Saulniersville.....	John T. Saulnier.....	Aug. 25, 1888.	25 do.....	29 00
Tancook Island.....	Joseph Pearl.....	Dec. 7, 1892.	25 do.....	
Tracadie.....	J. M. Hall.....	Nov. 6, 1888.	25 do.....	
Tusket Wedge.....	Jas. Cothreau.....	Feb. 16, 1889.	25 do.....	
Victoria.....	William Brown.....	do 11, 1889.	25 do.....	
Wallace.....	Don McKenzie.....	Dec. 16, 1892.	25 do.....	11 48
West Pubnico.....	N. A. D'Entremont.....	Apr. 9, 1890.	25 do.....	
West River, Sheet Harbour.....	Malcolm McFarlane.....	Sept. 3, 1889.	25 do.....	
White Point.....	Elisha West.....	Jan. 9, 1889.	25 do.....	
<i>New Brunswick.</i>				
Buctouche.....	J. J. LeBlanc.....	May 2, 1892.	25 do.....	12 09
Campbellton.....	Alfred J. Venner.....	June 10, 1893.	25 do.....	77 83
Clifton, Stonehaven.....	J. W. Dealey.....	May 13, 1893.	25 do.....	
Dalhousie.....	W. J. Smith.....	June 27, 1891.	25 do.....	102 49
Hope-well Cape.....	Wm. Hamilton.....	Apr. 9, 1890.	25 do.....	86 45
Quaco.....	W. H. Rourke.....	July 15, 1892.	25 do.....	
St. Louis.....	E. Comeau.....	May 2, 1893.	25 do.....	
<i>Prince Edward Island.</i>				
Annandale.....	James Taylor.....	July 2, 1885.	25 do.....	81 82
Bay View.....	Joseph Harrington.....	Oct. 2, 1885.	25 do.....	15 96

STATEMENT relating to Wharfs, &c.—Continued.

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration Allowed.	Amount deposited to credit of Receiver General.
<i>P. E. Island—Concluded.</i>				\$ cts.
Belfast	Thos. McLennan	July 21, 1890.	25 p.c. of collections.	81 05
Brush Wharf	Levi R. Ings	Sept. 18, 1885.	25 do	167 93
Campbell's Cove	Angus McIntyre	Oct. 17, 1888.	25 do	
Chapel Point	Ronald McCormack	Sept. 18, 1885.	25 do	29 41
China Point	W. S. N. Crane	do 18, 1885.	25 do	32 30
Clifton	Wm. McKay	do 22, 1886.	25 do	10 79
Crapaud and Victoria Pier.	James Day	May 12, 1890.	25 do	129 73
Georgetown	James Bourke	July 2, 1885.	25 do	17 27
Hickey's Wharf	R. Webster	do 31, 1891.	25 do	13 02
Higgin's Shore	G. G. Henry	Nov. 9, 1891.	25 do	
Hurd's Point	R. Robblee	Oct. 6, 1888.	25 do	36 46
Kier's Shore	H. S. McNutt	Nov. 3, 1885.	25 do	100 34
Lambert	Angus McQueen	Oct. 24, 1891.	25 do	110 79
Lewis Point	Joseph A. Macdonald	Apr. 15, 1891.	25 do	85 33
McGee's Island	Norman Gallant	Nov. 9, 1891.	25 do	
Mink River	B. Clow	June 30, 1892.	25 do	
Murray Harbour, South	R. Murley	Aug. 25, 1891.	25 do	16 00
Nine Mile Creek	Edward Harrington	Oct. 29, 1885.	25 do	
North Cardigan	Donald McIntyre	July 2, 1885.	25 do	40 73
Pinette	Vacant		25 do	11 18
Pownal	Alex. McRea	Oct. 2, 1885.	25 do	60 77
St. Mary's Bay	C. H. Lewellin	July 2, 1885.	25 do	27 00
Souris	B. McEachern	June 3, 1884.	25 do	
South Rustico, Oyster Bed Bridge.	Joseph Doucette	Oct. 2, 1885.	25 do	39 50
Stevens and Montague	Angus McQueen	do 24, 1891.	25 do	
Sturgeon River	Bernard Kearney	Sept. 18, 1885.	25 do	42 17
Tignish River	Geo. Conroy	Oct. 2, 1891.	25 do	14 75
Vernon River	J. G. McKenzie	do 19, 1885.	25 do	127 84
Wood Island	M. H. McMillan	May 16, 1889.	25 do	

RECAPITULATION.

Ontario	815 73
Quebec	733 53
Nova Scotia	4,393 66
New Brunswick	278 86
Prince Edward Island	1,292 14
Total wharfage dues collected	7,513 92

ADD Fees received by undermentioned harbour masters in excess of remuneration allowed:

Harbour Masters—Sorel, Que.	\$ 22 50
do St. Johns, Que.	48 00
do Cape Canso, N.S.	15 00
do International Pier, N.S.	17 00
do South Bar, N.S.	15 50
do Yarmouth, N.S.	2 00
do Chatham, N.B.	148 00
do Nanaimo, B.C.	90 00
	358 00

Total Revenue from Wharfs and Harbours..... 7,871 92

N.B.—With exception of Cow Bay and Digby, wharfingers are not required to forward returns of collections till end of calendar year. This statement only shows amounts received by department and placed to credit of Receiver General up to 30th June, 1893.

Marine and Fisheries.

APPENDIX No. 10.

DOMINION GOVERNMENT MESSENGER PIGEON SERVICE.

To the
Marine and Fisheries Department.

HALIFAX, N. S., 29th September, 1893.

SIR,—In accordance with your agent's request, I have the honour to submit this report on the training of the messenger pigeons since my last report, dated 3rd October, 1892, and to include only up to 30th June this year.

Lieut. Croker, the officer immediately in charge of the training, left this station in October last year, and his place, with my approval, has been voluntarily assumed by Sergeant Uriah Mulholland, R. E., the director of signals, under whose directions the training has proceeded most energetically this year, no opportunities for sending pigeons out by steamers, etc., having been lost, excepting through unfavourable weather or unfavourable times of departure of the vessels.

On 27th March, 1893, Private Stenton, 1st Leicester Regiment, the caretaker, was withdrawn from these duties, and relieved by Private Weaver, 1st Liverpool Regiment, the former being required for immediate embarkation with his regiment.

At the date of the last report, 3rd October, 1892, there were 32 birds in the loft.

At the present date, *i. e.*, 29th September, 1893, there are in the loft at Marine and Fisheries wharf 5 birds, and in the loft at the citadel signal station, 20 birds.

This latter loft was conceived and carried out by Sergt. Mulholland, who deserves the greatest credit for the skill he has displayed in his endeavour to make this season's training a success. This loft has been made up by transferring birds when about a month old, and has proved a great success, as the birds are under constant supervision day and night, and no bird returning with a message can possibly remain undetected for a greater period than ten minutes, and, as a rule, only a few minutes or less.

The total cost of the loft has not been more than \$5 for labour and material.

On the 11th February this year the actual training was commenced, all the birds, old and young, being assumed by Sergt. Mulholland as totally untrained, an assumption which was afterwards fairly justified in the fact of 4 birds let off from the steamer "Newfield" on 19th March, 1893, a distance of 25 to 40 miles, on the occasion of her search for the steamer "Sarnia," did not return, although their supposed previous flights was in each case 100 miles.

Between that date (11th February) and 29th June, there have been 85 flights, according to the rules of training laid down by General Cameron. The average number of birds in each flight was 7 and 8, the actual number of birds being 636.

The greatest distance of any of these flights, up to 29th June, was from the steamer "Worcester," on the 5th June, 25 miles south-easterly, and the number of birds, 11. Of these 11 birds 6 never returned, 1 returned 3 weeks afterwards, 1 returned 5 days afterwards, 1 returned 3 days afterwards, 1 was returned in a box from Canso, and only 1 bird returned the same day.

All these birds were carefully trained up to this distance, and the heavy loss appeared to warrant closing the training at once, but with perseverance and patience with the remainder of the birds, I have met with more gratifying success, especially with those from the citadel loft, and I have strong hopes now of having about 6 birds qualified to return from Sable Island during the next month at the outside.

On the 30th June, 1893, there were in the Marine and Fisheries loft 14 birds, and in citadel loft 16, making a total of 30.

During the period 3rd October, 1892, to 30th June, 1893, there have been lost in training from citadel loft, 3; Marine and Fisheries wharf loft, 30. There have

died at citadel 4, and at Marine and Fisheries wharf, 2, making a total loss of 41 birds.

At the date of the present caretaker, Private Weaver, taking over the duties, 27th March, 1893, there were in the Marine and Fisheries loft 52 birds, and citadel loft, 2 birds.

Both lofts are kept in a scrupulously clean condition, and the rules of General Cameron faithfully attended to by the caretaker, Private Weaver, who also shows great attention and interest in his work.

I have also, during the period included in this report, had occasion to write to General Cameron for advice on certain points in connection with the training, etc., and my thanks are due that officer for his full and explicit replies on each occasion.

I hope to submit to you another report to include from 1st July, 1893, to 31st October next, and which it is hoped will contain results proving the necessity, or otherwise, of continuing the training.

I have the honour to be, sir,

Your obedient servant,

L. J. DOPPING-HEPENSTAL,

Capt. R. E., Superintendent of Signals.

REPORT ON TRAINING OF MESSENGER PIGEONS.

HALIFAX, 1893.

1st. The figures for 1893 are as follows, viz. :—

In loft, January 1st, 1893,—

Birds hatched 1890	7
“ 1891	4
“ 1892	17
“ 1893	67
	—

Available total 95

Lost during 1893,—

From loft	7
Sold by order Marine and Fisheries Department	2
Died	17
In training	55
	—

81

Birds remaining in loft 31st December, 1893 14

Available total, 1893 95

2nd. The pigeons were trained at varying distances, as shown on Table A (attached), which is a summary from the pigeon training chart kept at the signal station.

3rd. The losses during training amounted to 55.

Details as regards these losses are given on Table B (attached). It will be noticed that these 55 losses occurred in 24 separate flights, and that in every one of these flights some of the birds reached their destination.—

(a.) March 16th, 1893.—Thirty miles—all 4 birds were lost, due to strong north gale.

(b.) January 21st, 1894.—Sable Island.—Both birds were lost. This case is explained in the extract from the newspapers marked C (attached.)

4th. As regards Sable Island,—

(a.) Seven pigeons were left on the island on 23rd November, 1893. They were liberated on 28th November, 1893.

Marine and Fisheries.

Two of them (Nos. 113 and 119) reached Halifax on the 29th and 30th November, 1893, as reported by Capt. Dopping-Hepenstel, in his letter from this office, dated 9th December, 1893.

The remaining 5 birds have not been heard from since, and are presumably lost.

(b.) The two successful pigeons (Nos. 113 and 119) were taken to Sable Island by ss. "Newfield" a second time and left on the island on 3rd January, 1894.

They were liberated 21st January, 1894, at 9.30 a.m., the wind being east and blowing a gale (the velocity being 30 miles per hour) at the time. On the same day No. 119 flew on board the American schooner "Mabel Leighton," then in lat. 42°30', long. 65°5' (about 150 miles south-south-west of Halifax.) The schooner did not put into port till 11th February, so that the intelligence of the wreck of the "Robert J. Edwards" on Sable Island on 12th January, was considerably delayed. However, but for the pigeons it would not have been known till some months later. The delay in liberating the birds, from 12th January to 21st January, can safely be attributed to unfavourable weather, as Mr. Boutilier, the superintendent of the island, had been carefully instructed as to the necessary conditions of the weather for letting the birds fly.

Had the wind at the time been, however, east south-east instead of east, I am satisfied both birds (113 and 119) would have made very quick time to Halifax.

D. MILLS,
Capt. R. E., Superintendent of Signals.

TABLE A.—Showing details of flights in which pigeons were lost during 1893 training.

Distance of flight in Miles.	Date of flight.	Number of pigeons.		Circumstances.
		Flown.	Lost.	
	1893.			
1	Mar. 16	10	1	From citadel to Marine and Fisheries loft.
1	" 28	13	1	" " " "
1	Apr. 13	11	4	" Garrison church to " "
4	Mar. 7	4	1	" Steam launch in harbour.
4	Apr. 7	7	1	" " " "
4	" 24	14	2	" " " "
4	July 7	8	1	" Rifle range camp to McNabb Island.
15	May 27	12	2	" SS. "Worcester."
21	June 22	10	6	" Chez. K., against strong wind.
25	" 5	12	6	" SS. "Worcester." Of remaining 6 birds 1 was returned in box from Canso, 1 was 7 weeks late, 1, 5 days late; 2, 3 days late.
25	Aug. 21	8	4	" "Carrol" in strong gale.
30	July 13	7	2	" "Newfield."
30	Mar. 16	4	4	" " " in search of "Sarnia — strong gale—north.
40	July 31	13	3	" "Worcester."
40	Aug. 15	11	1	" "Alpha."
40	" 21	11	2	" "Carrol"—strong gale.
50	Oct. 11	4	1	" "Lansdowne."
60	" 11	4	1	" " " "
100	Sept. 12	5	1	" "Fastnett."
130	Oct. 16	6	2	" "Lansdowne."
135	Sept. 18	4	1	" "Fastnett," off Canso.
135	" 25	8	1	" " " " "
180	Nov. 28	7	5	" Sable Island.
180	1894. Feb. 21	2	2	" " "
		195	55	

APPENDIX

STATEMENT relative to Life-Boat Stations

Stations.	Established.	Coxswain.	Number of Crew.	Salary of Coxswain.	Wages of Crew.
Blanche, N.S.	Sept. —, 1889	W. A. B. Smith.	6	\$75 per annum and \$1.50 for each drill.	\$1.50 each drill, twice a month.
Cape Sable, N.S.		Light-keeper	No organized crew.		
Cobourg, Ont.	Nov. 7, 1882	D. Rooney	6	\$75 per annum and \$1.50 for each drill.	\$1.50 each drill, twice a month.
Collingwood, Ont.	Sept. 2, 1885	P. Doherty	6	do	do
Devil's Island, N.S.	1885	Fredk. Edward	6	do	do
	Reorganized in 1890.				
Duncan's Cove, N.S.	1886	R. E. Monk	6	do	do
Goderich, Ont.	Oct. 21, 1886	Wm. Babb	6	do	do
Herring Cove, N.S.		James Dempsey	No organized crew.		
Mud Island, N.S.		Jacob Pitman	do	\$80	
Peléé Island, Ont.		A. Henning	6	\$75 per annum and \$1.50 for each drill.	\$1.50 each drill, twice a month.
Pictou Island, N.S.	Nov. 23, 1889	D. McLean	6	do	do
Poplar Point, Ont.	April 20, 1883	L. Spafford	6	do	do
Port Hope, Ont.	Nov. 6, 1889	C. R. Nixon	6	do	do
Port Mouton, N.S.	do —, 1889	J. Maxwell	6	do	do
Port Rowan, Ont.	Oct. 19, 1883	J. W. McColl	6	do	do
Port Stanley, Ont.	June 25, 1885	Wm. Berry	6	do	do
Sable Island, N.S.	1885	Supt. Humane Establishment.	From staff of Humane Establishment.	Paid as superintendent and staff of Humane Establishment.	
Scatterie, N.S.	1885	Jas. N. Brown	6	\$75 per annum, and \$1.50 for each drill.	\$1.50 each drill, twice a month.
	Reorganized in 1890.				
Seal Island, N.S.	1880	Light-keeper	No organized crew.		
St. Paul's Island, N.S.		Supt. Humane Establishment.	do		
Tormentine, Cape.					
Toronto, Ont.	Mar. 1, 1883	W. Ward	6	\$75 per annum, and \$1.50 for each drill.	\$1.50 each drill, twice a month.
Wellington, Ont.	Mar. 17, 1883	H. McCullough	6	do	do
Whitehead, N.S.	June 6, 1890	H. P. Munroe	6	do	do
Yarmouth, N.S.	1886	R. Carroll	6	do	do
	Reorganized in 1889.				

Marine and Fisheries.

No. II.

maintained by the Dominion Government in Canada.

Value of Boat.	Description of Boat.	Equipment.	Where built.	Expenditure for Fiscal Year ended 30th June, 1893.
\$				
575	Self-righting and self-bailing, 25 feet over all, 8 feet beam, Dobbins' pattern.	Full equipment, as required in regulation boat-house.	Dartmouth, N.S.	
	Metallic life-boat, 16 feet keel, 5 feet beam.	Ordinary outfit.....		
575	Self-righting and self-bailing, 25 feet over all, 8 feet beam, Dibbins' pattern.	Full equipment, as required in regulation boat-house.	Goderich, Ont.	
575	do	do	do	
575	do	do	Dartmouth, N.S.	
575	do	do	do	
575	do	do	Goderich, Ont.	
	Metallic life-boat, 28 feet keel, 6 feet beam.	Full equipment.....	New York	
	Fishing boats and dorys (not Government property).			
575	Self-righting and self-bailing, 25 feet over all, 7 feet beam, Dobbins' pattern.	Full equipment, as required in regulation boat-house.	Goderich, Ont.	
575	do	do	Dartmouth, N.S.	
550	Self-righting and self-bailing, 26 feet over all, 7 feet beam, Dobbins' pattern.	do	Buffalo, U.S.	
620	do	do	Goderich, Ont.	
575	do	do	Dartmouth, N.S.	
	Surf boat, 26 feet long, 6½ feet beam.	Full equipment and boat-house.	Buffalo, U.S.	
575	Self-righting and self-bailing, 25 feet over all, 7 feet beam.	do	Goderich, Ont.	
	Two boats as described above, Dobbins' pattern; one ordinary life-boat fitted with airtight compartments; one metallic life-boat; one surf boat; and one large despatch boat, schooner rigged, equipped for sea-going.	Boat-houses, full equipments, &c.		
	Self-righting, &c., same as others, Dobbins' pattern, and clinker-built ships' life-boat, 21 feet keel.	Full equipment and boat-house.	Dartmouth, N.S.	
	Wooden life-boat, 25 feet long, 6 feet beam, fitted with airtight compartments.	do	Halifax, N.S.	
	Two surf boats, one 25 feet over all, 6½ feet beam, the other 23 feet long, 4 feet 8 inches beam.		do	
		Not yet equipped.....		
575	Self-righting, &c., same as others, Dobbins' pattern.	Full equipment and boat-house.	Goderich, Ont.	
1,400	do	do	Buffalo, U.S.	
575	do	do	Dartmouth, N.S.	
575	do	do	do	

REPORT OF ALFRED OGDEN AS TO EFFICIENCY OF LIFE STATIONS,
BOATS AND CREWS.

PICTOU, N.S., 25th September, 1893.

WILLIAM SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—In compliance with the instructions contained in your letter of the 31st August, 1892 (Ref. 9, 535, '92), I beg to report that with the exception of the Island of St. Paul, I have visited all the life-saving stations in the provinces of New Brunswick and Nova Scotia, and append herewith a statement of the efficiency and requirements of the same.

PICTOU ISLAND STATION

Visited and inspected 3rd July last. Found that the hinges of the scuppers in the life boat were rusted out. It is necessary that these should be replaced; otherwise the boat was in good condition.

The boat-house and appliances were found in good order, excepting an addition to the launch-ways is necessary, requiring 209 feet of 12 x 2 inch spruce plank and some spikes. Estimated cost, \$6.00.

The winch is somewhat out of repair; cost of renewing, probably \$5.00; a new lantern is also needed, cost \$1.00. Total, \$12.

The land upon which the boat-house stands is not the property of the department, but is owned by J. W. Hogg. It is suggested that the department should have a deed of the property.

The crew were active, able-bodied, and good oarsmen; well drilled and disciplined.

Upon my arrival I notified the coxswain that I wished to inspect the boat and crew, and within thirty minutes they were all present and the boat launched.

SABLE ISLAND STATIONS.

These are under the direction of the superintendent of the humane institution on the island.

On the 11th August I arrived here in the Government steamer "Newfield," and examined all boats and appliances; found everything in good order and condition, except at No. 3 station, where the coxswain reported the old life-jackets unsound. Upon examination I concur, and recommend that seven new jackets be obtained.

The Superintendent, Mr. Boutilier, urges that a mortar and rocket apparatus be supplied for No. 4 station, east end, and I am of the opinion that this request should be granted.

During my last visit on the island the men were all engaged in shipping horses upon the "Newfield, so that I had no opportunity of exercising the crews, but they are all active and able-bodied men.

DEVIL'S ISLAND STATION

Visited 15th August; found boat, boat-house and appliances in good order. Some new lines will be required at this station, viz., 10 fathoms 3-inch manilla rope for cradle, 30 fathoms 1½-inch life line.

The crew were all present. Found them to be active and able-bodied men, and upon exercising them, found them to be excellent oarsmen.

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DUNCAN'S COVE STATION.

Visited 17th August. Boat-house, boat and appliances were found to be in good order and well cared for.

At the time of my visit part of the crew were temporarily absent in Halifax City, and as the tide was low, involving considerable labour to place the launch-ways, I did not require the coxswain to launch the boat.

The crew are all boat fishermen and live near the station.

HERRING COVE STATION

Visited 17th August. Found the boat in good order, but the appliances were not in proper position.

The coxswain is a new man, and did not seem to understand the requirements of the regulations. I gave such instructions in the case as were necessary.

I exercised the crew, who were active, able-bodied men and excellent oarsmen.

WHITE HEAD STATION

Visited 25th August. Found boat-house, boat and all appliances in good order, except the scupper hinges, four of which are rusted out and will require replacing.

The crew exercised for one hour. They are active, able-bodied men and first-class oarsmen.

SCATTARIE ISLAND STATION

Visited 1st September. At this station, boat-house, boat and all appliances are in good order, except the cradle, which is too short for the boat, and a new one is required. One axe and paint and oil for boat is also needed. I had to visit the island in an open boat, and as the wind was blowing hard from the north-west and I was anxious to reach the main land before dark, I did not exercise the crew, but they are fishermen and had the appearance of being well able to handle the boat in any weather.

CAPE TORMENTINE, N. B., STATION

Visited 8th September. As yet no organized crew at this station.

MUD ISLAND STATION

Visited 13th September. This station has one dory 18 feet long, with air-tight compartments forward and aft, and one keel boat 22 feet long, sloop-rigged (new), the property of the Mud Island Lobster Company, who receives from the department some compensation for keeping these boats in readiness for an emergency.

During the winter months three men employed by this company live on the island.

During the summer season a large number of fishermen are on the island.

YARMOUTH STATION, BAKER'S COVE

Visited 14th September. The boat at this station reported to have come from Sable Island in 1887, is very much out of repair and unfit for use.

SEAL ISLAND STATION

Visited 13th September. The boat at this station is heavy and hard to row; the thwarts are not properly arranged, but it is a good sea and surf boat.

From 1st November to 15th March three men only reside upon the island.

A loaded cane and light heaving line, and two iron water buckets, are required. The boat and equipments were in good order.

CAPE SABLE STATION

Visited 15th September. At this station there is a metallic life-boat 16 feet long which is not suitable for the place.

I would recommend a larger boat with full equipment. A volunteer crew can be obtained, at one hour's notice, from Cape Sable Island.

BLANCHE POINT STATION

Visited 16th September. Found boat-house and boat in good condition. Exercised the crew, who are active, able-bodied and splendid oarsmen, and under good discipline.

PORT MOUTON ISLAND STATION

Visited 18th September. Coxswain absent on main land. Found boat in good order, except scupper hinges, which are all rusted off.

I saw most of the crew, who are able-bodied fishermen; but as the coxswain was absent I did not ask them to launch the boat.

On my way back to the main land I met the coxswain, a fine specimen of a fisherman, who was under the impression that he could use the boat-house for private purposes. I gave him the necessary instructions regarding the boat-house and appliances.

At Shelburn I saw a life-boat (McLellan's model), under construction by J. McGill, Esq. The material used was of good quality and light; the workmanship is also good. This boat, in my opinion, will be more suitable for our coast than those now in use.

I am, sir,

Your obedient servant,

ALFRED OGDEN.

Extract from a paper by Sumner J. Kemball, General Superintendent of the United States' life-saving service.

The ultimate means employed by life-saving institutions to rescue people from stranded vessels are everywhere essentially the same. The tumultuous waters between the wreck and the shore are either crossed by a life-boat sent out to the imperilled people, or are spanned by strong lines by which a breeches-buoy or other vehicle is passed back and forth. There are many kinds of life-boats, however, and various devices for effecting line-communication. The type of boat in most general use in our service, although properly entitled to be called a life-boat, is distinctively known as the surf-boat, and this term will be applied to it in the remarks which follow upon this topic. There are several varieties of this type, all developments of the boat found in use among the shore fishermen or surfmen of the Long Island and New Jersey coasts for crossing the surf on the outlying sand-bars in their daily blue-fishing when the first boat-houses or stations were placed there. Three varieties, respectively designated the Beebe, the Higgins & Gifford, and the Beebe-McLellan surf-boat, from the names of the persons who devised the modifications which characterize them, are the only ones furnished to the stations in recent years. They are all constructed of white cedar with white oak frames, and their dimensions are from 25 to 27 feet in length, 6½ to 7 feet beam, 2 feet 3 inches to 2 feet 6 inches depth amidships, and 1 foot 7 inches to 2 feet 1 inch sheer of gunwale. Their bottoms are flat, with little or no keel, and have a camper of 1½ or 2 inches in 8 feet each side of the midship section. They draw 6 or 7 inches of water, light, and weigh from 700 to 1,100 pounds. They are propelled with six oars, without sails, and are expected to carry, besides their crews, from ten to twelve persons, although as many as fifteen

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have been landed at a time in a bad sea. Their cost ranges from \$210 to \$275. There is no difference between the Beebe and the Higgins & Gifford boat, except that the former has more sheer and is a clinker-built, while the latter is of carvel construction. The Beebe-McLellan boat is the Beebe boat with the self-bailing quality incorporated. This feature has been added within the past two years, and but few of them have yet been put into service. All of these boats are so light as to be readily transported along the shore; they can be launched in very shallow water, and in the dexterous hands of our surfmen are manœuvred in the breakers with marvellous ease and celerity. This facility of handling is of great advantage when working wreckage, and to quickly slip up alongside a stranded vessel at a favourable moment and receive its freight, while it is easily fended off from contact with the lurching hull.

These boats, of one variety or other, are supplied to nearly all the stations in the service, and on the Atlantic sea-board they are relied upon almost exclusively. Indeed, the shores of soft, yielding sand without roads, and the flat beaches covered with but little depth of water for a considerable distance seaward, which almost uniformly mark the coast from Cape Cod to Cape Fear, preclude the use of boats of greater weight and draught. Even at those stations where the most approved self-righting and self-bailing boats are furnished, the surf-boats are generally preferred by the life-saving crews for short distances and when the number of imperilled people is not large. In executing the work required at minor casualties, such as aiding to float stranded craft by carrying out anchors, running lines to tugs, etc., they are especially handy and by their use a vast amount of property has been saved.

As respects safety they will compare favourably with any other boats. During the eighteen years they have been in the hands of our crews they have been launched 6,730 times in actual service, and have landed 6,735 persons from wrecked vessels. In all this service they have capsized but 14 times. Six of these instances were attended with loss of life, the number of persons perishing being 41, of whom 27 belonged to the service and 14 were shipwrecked people.

Among other life-boats, the self-righting and self-bailing boats of the Royal National Life Boat Institution of Great Britain, the honoured mother and mentor of all existing life-saving organizations, are unquestionably pre-eminent. They are the product of a century's devoted study and experiment with unstinted means, dating from the time the London coach-maker first conceived the idea of a life-boat. Their wonderful achievements have formed the theme of song and story, shed merited luster upon the institution which fostered their development, and stimulated the formation of kindred organizations equipped with their models throughout christendom. I learn from the annual reports of the institution that during the same period of eighteen years her boats have capsized 21 times attended by loss of life, the number perishing aggregating 75, of whom 68 were life-boatmen and 7 shipwrecked people. The number of capsizes unattended with loss of life I could not ascertain, except by an exhaustive search through the detailed accounts of all occasions of service, but I find by the official report of the inquiry into the circumstances of the accidents to the Southport and St. Anne's life-boats in December, 1886, made to the Board of Trade by Sir Digby Murray, Bart., and Captain the Hon. H. W. Chetwynd, of the Royal Navy, chief inspector of life-boats for the institution, that during the previous thirty-two years, the self-righting boats of the institution had been launched in actual service 5,000 times, whereby 12,000 lives were saved, and that on these occasions 41 of the boats had capsized, 23 of the accidents being unattended with loss of life, while 18 were accompanied with fatal results. The number of persons lost was 88, 76 being life-boatmen and 12 shipwrecked people. The report further states that "the 76 life-boatmen lost represented about 1 in 850 of the men afloat in the life-boats on service, and the capsizes 1 out of each 120 launches on service." In the case of our capsized surf-boats the 27 men lost represented 1 in 1,744 of the men afloat in the surf-boats on the service, and the capsizes 1 out of each 480 launches on service. But as the saving of property is an incidental duty imposed upon our crews, the surf-boats, although they are not used in saving cargoes, are doubtless often launched under conditions more favourable than gen-

erally fall to the lot of the boats of the institution, and therefore the number of launches does not afford a satisfactory basis for comparison. Let us therefore take another basis. The number of lives saved by the life-boats is stated, as we have seen, at 12,000—in round numbers, probably. Calling the number saved by the surf-boats 6,500 in round numbers, we find, then, 1 capsizes of the surf-boat to every 464 persons saved, a difference in its favour of 172. The self-righting boat lost 1 life to every 136 saved, the surf-boat 1 to every 158 saved, a difference of 22 in its favour. Of the life-boatmen afloat, 1 to 850 were lost by the self-righting boat, 1 to 1,109 by the surf-boat, a difference of 259 in favour of the latter. In the life-boat 1 man of the crew is lost for every 157 lives saved, in the surf-boat 1 for every 240 saved, a difference in favour of the surf-boat of 83.

Since 1876 there have been put into the United States Service 37 self-righting and self-bailing life-boats of the model of a boat received from the Royal National Life-boat Institution. They are all nearly reproductions of the boat sent to us. They are 29 feet 3 inches in length, 7 feet 7 inches beam, 3 feet $1\frac{1}{2}$ inches deep amidships, 1 foot 10 inches sheer of gunwale, straight-bottomed, pull 8 oars, and weigh about 4,000 pounds each. This great weight is made necessary by the device of a heavy iron keel to aid in securing the self-righting quality. They have made on service 471 trips and saved 584 persons; they have capsized on service 4 times, once with fatal results, 5 lives, all shipwrecked people being lost. These figures produce results similar to those already reached in reference to the life-boats used in Great Britain. The boats have capsized once in each 118 trips, and once in rescuing every 146 persons, and one life has been lost from the boats to every 117 saved.

There are two other varieties of self-righting and self-bailing boats in the service—the Richardson and the Dobbins. They are modifications of the life-boat just described, though considerably lighter. They have not been used often enough to furnish any practical basis of comparison, but have given good results so far.

Notwithstanding these figures it would be unwise to hastily conclude that the surf-boat of either variety mentioned is the best life-boat for all conditions of service. Among the boats at present employed in life-saving institutions I know of none that can justly be denominated the best life-boat. The type that is best for one locality may be ill-adapted or entirely unfitted for another, and a boat that would be serviceable at one time might be worse than useless at another in the same locality.

On the larger portion of the Atlantic seaboard boat service at wrecks is not very distant from the shore, and the chief danger lurks in the line of surf which must be crossed and in the breakers on outlying shoals. For this service the surf-boat is easily transported on its carriage through the loose and trackless sands of the strand to a point as near the wreck as possible, is quickly unloaded, and at a favourable time is launched in a minute. The keeper steers with a long steering oar, and with the aid of his trained surfmen, intent upon his every look and command, manœuvres his buoyant craft through the surf with masterly skill. He is usually able to avoid a direct encounter with the heaviest breakers, but if he is obliged to receive their onset meets them directly "head on." His practised hand immediately perceives any excess of weight thrown against either bow and instantly counteracts its force with his oar as instinctively and unerringly as the skilled musician presses the proper key of his instrument. He thus keeps his boat from broaching-to and avoids a threatened capsize. The self-righting boat is more unwieldy and not so quickly responsive to the coxswain's tactics, and is therefore not so well adapted to our general work.

The usual conditions of service in the United Kingdom are probably different. The excursions the life-boats make on service are said to be more extended, and exposure to violent gales for long periods upon the open sea more frequent. Our surf-boats, it is true, venture upon outlying shoals covered with breakers, such as the Nantucket Shoals, off Massachusetts, and the Diamond Shoals, off Cape Hatteras, but it is likely that there is no such locality within the scope of our service so fatal as the terrible Goodwin Sands, which are often visited by the boats of the Royal National Life-boat Institution, and where they have accomplished so much noble work. There are doubtless other important differences in the requirements of ser-

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vice with which I am not acquainted. Probably, therefore, the conditions are so diverse that no just conclusion as to the superiority of the two boats can be drawn from the results of their experience, and I have given these results in comparison, not with a desire to establish such a conclusion, but to show that the United States service has provided quite as effective means for dealing with the conditions presented to it as the most eminent organization of other countries has for its conditions, and because I thought they might be of service in the deliberations of the committee in considering some of the topics of the division of the programme referred to it, and, further, because I thought they might aid in the efforts always being made by life-saving institutions and by individuals to improve the safety of life-saving boats. Where long excursions are to be undertaken and the service is exceptionally hazardous, the men undoubtedly feel safer in a self-righting boat, and, having this in view, it has been introduced into many of our stations, where it may be found side by side with the surf-boat, the choice being left to the keepers to take either, as the occasion seems in their experienced judgment to demand.

Self-righting and self-bailing are properties unquestionably desirable in any boat designed to be used in saving life, provided they can be obtained without too greatly impairing other necessary qualities. May it not be a question worthy of consideration whether these properties and the means of propulsion by sails cannot be advantageously incorporated into the surf-boat without materially increasing its weight and draught, and whether such a boat would not be found to be better adapted to perform the general services of life-boats than those which sit deeply in the water, and which, on that account and because of their great weight, are less agile in action and more difficult to transport and launch? Already, as I have said, the self-bailing property has been successfully applied by Lieut. McLellan, and is hailed with delight by our crews; the addition of sails has also been accomplished by the use of a centre board, and I am able to add that I believe the self-righting quality is on the verge of successful application. One boat of this kind is already built, and with slight changes, which seem entirely practicable, I believe will satisfactorily solve the problem, at least so far as to answer all the purposes of our service. When this result is attained, why may not self-bailing and self-righting boats supplant the inferior boats now carried upon passenger vessels for life-boats? And why, since it has been found that the self-bailing principle can be applied to a model thoroughly convenient to be carried on shipboard, may not these vessels even now be supplied with self-bailing boats, in which the liability to capsizes is greatly diminished by reason of their ability to immediately free themselves of any water they may ship?

APPENDIX No. 12.

LIST OF STATUTES RELATING TO DEPARTMENT OF MARINE AND FISHERIES PASSED AT THE SESSION OF 1893.

CHAP. 22.

An Act to amend the Merchant Shipping Act, with respect to load lines.

[Assented to 1st April, 1893.]

Whereas by section five hundred and forty-seven of the Act of the Parliament of the United Kingdom known as The Merchant Shipping Act, 1854, it is enacted that the legislative authority of any British possession shall have power by any Act or ordinance confirmed by Her Majesty in Council to repeal, wholly or in part, any provisions of the said Act relating to ships registered in such possession; and whereas by the Act of the said Parliament known as The Merchant Shipping Act, 1876,—which, as is provided by section two thereof, is to be construed as one with The Merchant Shipping Act, 1854, and the Acts amending the same,—certain provisions are made in sections twenty-six, twenty-seven and twenty-eight thereof, with respect to the marking of load lines upon British ships; and whereas by sections one and two of the Act of the said Parliament known as The Merchant Shipping Act, 1890, the provisions of the said sections twenty-six and twenty-seven are amended in certain particulars; and whereas it is not desirable that the said sections twenty-six and twenty-seven, as so amended, or the regulations which have been or may be made by the Board of Trade thereunder, or the provisions of the said section twenty-eight, should apply to ships registered in Canada: Therefore Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, declares and enacts as follows:—

1. Sections twenty-six, twenty-seven and twenty-eight of The Merchant Shipping Act, 1876, and sections one and two of The Merchant Shipping Act, 1890, of the United Kingdom, are hereby repealed so far as they relate to or affect ships registered in Canada.

2. This Act shall not come into force until Her Majesty's pleasure thereon has been signified by proclamation in the *Canada Gazette*, nor until a proclamation of the Governor in Council bringing it into effect has also been published in the said Gazette.

CHAP. 21.

An Act respecting the Harbour Commissioners of Montreal.

[Assented to 1st April, 1893.]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, declares and enacts as follows:—

1. For the removal of doubts as to the borrowing powers of the Harbour Commissioners of Montreal, it is hereby declared and enacted that it was and is lawful for the said Harbour Commissioners to borrow, subject to the provisions of the Acts relating to the said Harbour Commissioners with respect to moneys thereby authorized to be borrowed by them, such sums of money as are necessary for the purpose of redeeming debentures issued by them for moneys borrowed under the said Acts: Provided, that the sums so borrowed shall not in any case exceed the amount of the debentures to be redeemed, and shall not be applied to any other purpose.

2. Section eight of chapter sixty-one of the Statutes of 1873, and section two of chapter thirty-one of the Statutes of 1874, as amended by section four of chapter fifty-three of the Statutes of 1891, are hereby repealed, and in lieu thereof it is hereby enacted that the Corporation of the Harbour Commissioners of Montreal shall

Marine and Fisheries.

consist of eleven members, six of whom shall be appointed by the Governor in Council, one of whom shall be the mayor of Montreal, *ex officio*, during his term of office, and the remaining four of whom shall be elected—one by each of the following bodies:—The Montreal Board of Trade, the Montreal Corn Exchange Association, *la Chambre de Commerce du district de Montréal*, and the shipping interest of the harbour of Montreal.

2. The rotation shall continue to be every four years.

3. Section ten of chapter sixty-one of the Statutes of 1873, as amended by section one of chapter thirty-one of the Statutes of 1874, is hereby repealed and the following substituted therefor:—

“ 10. The Board of Trade, the Corn Exchange Association, and *la Chambre de Commerce du district de Montréal* shall severally, at a meeting to be held at their respective chambers or usual places of meeting, in the city of Montreal, at noon, on the first Monday of August (or if that day should be a legal holiday, then the next day not being such holiday) in each year, elect each one person to fill the office of harbour commissioner; and the person having the majority of votes of those personally present at each of the said several meetings, shall be held to be duly elected, and the secretary shall give him a certificate of his election, and shall also certify the same to the Minister of Marine and Fisheries.”

CHAP. 24.

An Act to amend the Inland Waters Seamen's Act.

[Assented to 1st April, 1893.]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. The Inland Waters Seamen's Act, chapter 75 of the Revised Statutes, is hereby amended by adding the following section thereto immediately after section 35:—

“ 35a. The master of any ship subject to the provisions of this Act shall, so far as the case permits, have the same rights, liens and remedies for the recovery of his wages, and for the recovery of disbursements properly made by him on account of the ship, and for liabilities properly incurred by him on account of the ship, as by this Act or by any law or custom any seaman, not being a master, has for the recovery of his wages; and if, in any proceeding in any court possessing admiralty jurisdiction in any of the said provinces touching the claim of a master to wages, any right of set-off or counter-claim is set up, such court may enter into and adjudicate upon all questions and settle all accounts then arising or outstanding and unsettled between the parties to the proceeding, and may direct payment of any balance which is found to be due.”

CHAP. 23.

An Act to amend the Wrecks and Salvage Act.

[Assented to 1st April, 1893.]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. Sections 7 and 8 of the Wrecks and Salvage Act, chap. 81 of the Revised Statutes, are hereby repealed, and the following substituted therefor:—

“ 7. Upon the conclusion of any such inquiry the officer or person who made it shall send to the Minister a report containing a full statement of the case, and of his opinion thereon, accompanied by such report of or extracts from the evidence and such observations as he thinks fit.”

“ 8. If it appears to the Minister in any such case as aforesaid, either upon or without any such preliminary inquiry as aforesaid, or in any case of a charge of

misconduct or incapacity brought by any person against any master or mate of any ship, that a formal investigation is requisite or expedient, the Minister may appoint any officer or officers of the Government of Canada or any body corporate, commissioner or commissioners, constituted for any public purpose subject to the legislative authority of the Parliament of Canada, by his, its or their name or names or title or titles of office, or any other competent person or persons, to be a court or tribunal for the purpose of such investigation."

CHAP. 25.

An Act further to amend the Steamboat Inspection Act.

[Assented to 1st April, 1893.]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. Section 43 of The Steamboat Inspection Act, chapter 78 of the Revised Statutes, is hereby repealed and the following substituted therefor:—

"43. No person shall employ another as engineer, and no person shall serve as engineer on any passenger steamboat, of whatever tonnage, or on any freight steamboat of over 150 tons gross, unless the person employed or serving as engineer holds a certificate from the Minister for the grade in which he is to be employed, and every person who offends against this section shall incur a penalty of \$100, provided however, that if a steamboat leaves a port with a complement of engineers, and on her voyage is deprived of their services, or the services of any of them, without the consent, fault or collusion of the master, owner or any one interested in the steamboat, the deficiency may be temporarily supplied until engineers holding such certificates can be obtained."

2. Subsection 1 of section 61 of the said Act, as amended by section 5 of chapter 23 of the Statutes of 1889, is hereby repealed and the following substituted therefor:—

"61. All penalties incurred under this Act may, when no other provision is made in the case, be recovered with costs in a summary manner under the Act respecting Summary Proceedings before Justices of the Peace, in the name of Her Majesty, by any inspector or any person aggrieved by any act, neglect or omission, on the evidence of one credible witness who may be the prosecuting inspector himself, before any judge of a county court, judge of the sessions of the peace, stipendiary or police magistrate, or two justices of the peace; and in default of immediate payment of such penalty, such judge, magistrate or justices may commit the offender to jail for any term not exceeding three months, unless such penalty is sooner paid; and all penalties recovered under this Act shall be paid to the Minister of Finance and Receiver General, and shall be by him placed to the credit of the Consolidated Revenue Fund of Canada; provided, that the Governor in Council may, if he sees fit, authorize the payment of a portion of any such penalty to the informer, if he is not an inspector."

CHAP. 20.

An Act to amend the Act respecting the Harbour and River Police of the Province of Quebec.

[Assented to 1st April, 1893.]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. Chapter 89 of the Revised Statutes, intituled "An Act respecting the Harbour and River Police of the Province of Quebec, is hereby amended by adding the following section thereto:—

"11. The tonnage duty payable under this Act shall no longer be levied when the harbour and river police force mentioned in section 2 ceases to be maintained under the authority of this Act."

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APPENDIX No. 13.

COMPARATIVE STATEMENT of Lighthouses, &c., and Steamers of the Marine Branch maintained in the respective Agencies, corrected up to 31st December, 1893.

District.	Light stations.	Lights.	Keepers.	Light-ships.	Fog-whistles.	Fog-horns.	Fog-bells.	Fog-guns or bombs.	Whistling buoys.	Bell-buoys.	Gas buoys.	Steamers.	Total expenditure for each Agency.	Salaries paid in the Agencies.	Number of Persons employed in each Agency.
	*	*	*	*	*	*	*	*	*	*	*	*	% cts.	*	*
Province of Ontario.....	173	212	167	4	2	10	2	2	2	2			96,304 77		
Light-ships.....	4	4													
Province of Quebec.....	115	152	136	8	2	8	9	9	10	3	10 (4 with bells)	3	157,166 13	4,580	5—Agent, accountant and 3 clerks.
Light-ships.....	8	8			3										
Province of Nova Scotia.....	169	175	174	1	10	6	2	1	15	10		1	192,290 14	5,200	5—Agent, inspector, accountant, clerk, messenger.
Fog-alarms.....	2	2													
Light-ships.....	1	1													
Province of New Brunswick.....	94	118	100	1	4	8	1	4	3	3		1	99,931 34	3,400	3—Agent, accountant, messenger.
Fog-alarms.....	3	3													
Light-ships.....	1	1													
Province of Prince Edward Island.....	34	52	40			1			2	1			39,480 44	1,825	1—Agent, warehouseman.
Province of British Columbia.....	13	13	15		1	4	3		1	1			55,965 79	1,975	2—Agent, messenger, and occasional clerical assistant.
Lighted buoys.....	2	4													
	619	745	632	14	22	37	8	11	21	17	10				
	*	*	*	*	*	*	*	*	*	*	*	*			

* Light-ships and fog-alarms where there are no lights are in these two columns included in the total number of light stations and lights in the Dominion.

APPENDIX No. 14.

LIST of Persons to whom Rewards have been granted by the Government of Canada, for the year 1893, for gallant and humane services rendered in saving life from shipwrecked vessels, or by British and Foreign Governments for similar services rendered by Canadian vessels in saving life from shipwrecked British and foreign vessels for same period.

Names and Designations of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward.
Capt. James Campbell, master; Edward H. Stannard, 2nd mate; Chas. Golborne, 3rd mate; W. Stephens, boatswain; W. D. Johnson and John Burns, seamen; of the ss. "Bentala."	Gallant and humane services to the shipwrecked crew of the barque "Howard A. Turner," of St. John, N.B.	Jan. 19, 1890.	A binocular glass to the master, value £5; a gold watch to 2nd mate, value £15; a gold watch to 3rd mate, value £9; a silver watch to boatswain, value \$25; and a silver watch to each of the 2 seamen, value \$25 each.
Dennis Laurie and Peter Whalen, of North Sydney, N.S.	Humane services in rescue of three fishermen from drowning.	July 23, 1891.	Honorary testimonials on vellum from the Royal Humane Society of London, Eng.
Fishermen at St. Pierre Miquelon.	Services in saving seven of the crew of steamer "William," of Charlottetown, P. E. I., wrecked off St. Pierre Miquelon.	Dec. 28, 1891.	\$3 to each of the 15 fishermen — \$45 in all.
Capt. F. Carey, master; G. C. Evans, 1st officer; R. Roberts, 4th officer; J. Squires, carpenter; J. Cosgrave, boatswain; G. Moore, M. Horan and J. Ronayne, quartermasters of the ss. "Lake Huron," of the Beaver line of steamers.	Gallant exertions in rescue of the shipwrecked crew of the barque "Kate Cann," of Yarmouth, N.S.	Jan. 4, 1892.	A binocular glass to master, value \$30; a gold watch to 1st officer, value \$80; a silver watch to 4th officer, value \$50; a silver watch to carpenter, value \$30; a silver watch to boatswain, value \$26; a silver watch to each of the three other men, value \$20 each.
Capt. F. W. Gornley, master of the "Severn," of Windsor, N.S.	Assistance to schr. "Pollux," of Hamburg, while in distress at sea.	Jan. —, 1892.	A gold watch awarded by the Emperor of Germany.
Mr. John Boulton, of Niagara-on-the-Lake, Ont.	Rescue of nine persons from drowning at Niagara-on-the-Lake, Ont.	May 24, 1892.	Honorary testimonial on vellum from the Royal Humane Society.
David McKenzie and James McKenzie, of Big Bras d'Or, Cape Breton, N.S.	Meritorious conduct of the two lads, aged respectively 15 and 12, in rescuing a fisherman from drowning, whose boat had capsized and whose companion got drowned on the Big Bras d'Or Lake, N.S.	June 27, 1892.	Testimonials on vellum from the Royal Humane Society of London, Eng.
Capt. John Boehner, master of the schooner "Florence," of Lunenburg, N.S.	Rescue of Capt. Budd S. Melvin, the only survivor from the wrecked schr. "Theresa" of New York, U.S.	July 4, 1892.	A gold watch and chain from the United States Government.
Mr. Charles Rafuse, master of the fishing schooner "Amelia Cockburn," of Lunenburg, N.S.	Kindness and humanity to the three survivors of the crew of the barque "Hope," of Aberystwith, which foundered in the North Atlantic.	Aug. 22, 1892.	A binocular glass from the Imperial Government.
Capt. L. Spafford, coxswain, and crew of life-boat at Poplar Point, Ont.	Services to schr. "Grantham," stranded on Timber Island Bar.	Oct. 9, 1892.	\$1.50 to each of the seven men of the life-boat crew — \$10.50 in all.

Marine and Fisheries.

LIST of persons to whom Rewards have been granted, &c.—Continued.

Names and Designations of Persons.	Nature of Service rendered.	Date of Service rendered.	Description of Reward.
Capt. C. R. Briggs, master; G. W. Marshall, 1st officer; T. Gale, boatswain; G. Vringer and A. Von Herman, seamen; of the ss. "Kasbek," of London, England.	Rescue of the shipwrecked crew of the brigantine "American Union," of Halifax, N.S., abandoned at sea.	Oct. 18, 1892.	A binocular glass to master, value £5; a binocular glass to 1st officer, value £5; and £2 to boatswain and to each of the seamen.
Capt. John Hayes, of pilot-boat No. 4, of Halifax, N.S.	Services in rescuing the shipwrecked crew of the American schr. "Knight Templar."	Nov. 12, 1892.	A marine glass by the United States Government.
Captain Auguste A. Goudillon, master; S. F. Fournier, 2nd officer; Antoine Revest, quarter master; Yves M. Legrand, Joseph M. Legrand and Pierre M. Allaire, seamen of the French steamer "Marseilles."	Humane and generous services to the survivors of the crew of the barque "Navarch" of Yarmouth, N.S., abandoned off the Island of Flores, Azores group, Atlantic Ocean.	Dec. 20, 1892.	A binocular glass to master, value £6; a gold watch to 2nd officer, value \$102; a silver watch to quarter master, \$27; and a silver watch to each of the three seamen, of the value of \$20.
Mr. E. F. Amesbury, master of the ship "S. D. Carlton" of Rockport, Maine, U.S.	Services in rescue at sea of the crew of the schooner "Mineola" of Windsor, N.S.	Jan. 5, 1893.	Letter of thanks from the Government of Canada.
Captain Wm. Sampson, master; O. B. Thompson, 2nd officer; Hans Hansen, C. Dobbelane, K. Karbore and W. T. Nylund, seamen of the British ss. "Sandfield."	Rescue under great difficulties of the master and three men of the schooner "Unexpected" of Windsor, N.S.	Jan. 26, 1893.	A binocular glass to master, value £5; a silver watch to 2nd officer, value £9; and £2 to each of the four seamen.
Mr. Daniel McDonald, master; John J. Carroll and Henry Scott of the schooner "Hustler" of Gloucester, Mass. . . .	Humane and gallant exertions in the rescue of the shipwrecked crew of the schooner "Ann Maria" in distress near Cross Island.	Feb. 4, 1893.	A binocular glass to master, value £4 sterling; a silver watch to each of the men of the value of £6 sterling each.
Simeon Hiltz, James Meisner, Michael Stoddard, Edmund Conrod, Elias Hiltz, James Conrod, Thomas Conrod, Henry Nangle, William Conrod, Charles P. Conrod, Alex. Conrod, Thomas Nangle, Henry Merson, William Nangle, fishermen.	Rescue of crew of brigantine "Edith" of Halifax, N.S., which vessel had run ashore in the fog on Egg Island near Halifax, N.S.	Feb. 7, 1893.	\$5 to each of the 14 men who accomplished the rescue.
Timothy Akin, Frederick Akin, Isaiah Tilton, Eugene Brightman and Hiram Jackson of the volunteer life-boat crew of Cuttyhunk, Mass., U.S.	These five brave men lost their lives in attempting the rescue of the brigantine "Aquatic" of St. John, N.B., ashore on the rocks near Cuttyhunk, Mass.	Feb. 24, 1893.	A cheque of \$1,000 sent to Humane Society of Massachusetts at Boston, for distribution to the families of the deceased, with an expression of the sympathy of the Government of Canada to the families in the loss sustained.
Captain B. Wischhausen, master; H. Dalldorf, 1st officer; E. Schmidt, W. Stuntz, John Frederickson and Albert Koing, seamen of the ss. "Gut Heil" of Bremerhaven.	Humane and gallant exertions in the rescue of the shipwrecked crew of the schooner "Annie" of Halifax, N.S.	Feb. 25, 1893.	A binocular glass to master, value £5; a gold watch to 1st officer, value \$80; and a silver watch to each of the four seamen, value \$20 each.
Mr. C. A. Martel, master; F. Martell, mate; P. Campbell and V. Power, seamen of the schooner "Helena" of Halifax, N.S.	Services in the rescue of the shipwrecked crew of the American barkentine "Edward Cushing."	Mar. 11, 1893.	A gold watch and chain to master; a gold medal to mate, and a silver medal to each of the two seamen from the United States Government.
Men of lifeboat station at Rockport, Mass., U.S.	Gallant and humane conduct in effecting the rescue of the shipwrecked schooner "Osse" of St. John, N.B.	May 17, 1893.	\$100 to be distributed among 13 men of the lifeboat crew.

LIST of Persons to whom Rewards have been granted, &c.—*Concluded.*

Names and Designation of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward.
Captain Wm. Ward, coxswain, and crew of lifeboat station at Toronto, Ont.	Courage and humanity in rescuing two men from drowning at Toronto Island.	May 18, 1893.	Honorary testimonial on vellum from the Royal Humane Society of London, England.
Mr. Samuel Ellery of Penetanguishene, Ont.	Rescue of Walter Charlebois from drowning at Penetanguishene.	June 18, 1893.	Honorary testimonial on vellum from the Royal Humane Society of London, England.
Captain Williams, master; S. S. Connauton, chief officer; John Corbett, boatswain; George Nugent, John Sloan and Stephen Polglase, seamen of the Royal Mail Steamship "Vancouver" of the Dominion Line of steamers.	Rescue from drowning in the River St. Lawrence near L'Islet, of two persons who had been fishing, and whose boat was overturned in a squall.	Sept. — 1893.	The thanks of the Government of Canada.
Captain D. Rooney, coxswain, and crew of the life-boat at Cobourg, Ont.	Gallant conduct in rescuing the schooner "White Oak," when in imminent danger of being driven ashore and wrecked at Boulton Point, Ont.	Sept. 16, 1893	\$5 to each of the seven men of the life-boat crew—\$35 in all.
Donald McLean, coxswain, and crew of life-boat at Pictou Island, N.S.	Rescue of thirteen men of the crew of the Norwegian barque "Stanley," on shoal off west end of Pictou Island, N.S.	do 30, 1893	\$3 to each of the seven men of life-boat crew—\$21 in all. Allowed crew \$70 for wages and expenses incurred, as life-boat and crew had been weather bound 6 days at Pictou, N.S.
Captain A. Henning, coxswain, and crew of life-boat at Pelée Island, Ont.	Life-boat crew stood in readiness all day to go and assist the tug "Louise" in the rescue of the schooner "David Stewart," foundered at Point Pelée, Ont.	Oct. 6, 1893	\$2 to each of the seven men of life-b at crew.
Captain Hugh McCullough, coxswain, and crew of life-boat station at Wellington, Ont., and one other man.	Rescue of the American barge "Hecla."	do 14, 1893	\$6 to each of the nine men of the crew, and \$3 to other man—\$57 in all.
Captain J. W. McCall, coxswain, and crew of life-boat station at Port Rowan, Ont., and two other men.	Services at wreck of American steam barge "Wocoken," which vessel was water-logged and sank off Clear Creek, 8 miles west of Port Rowan life-saving station.	do 15, 1893	\$5 to each of the six men of crew, and \$3 to each of the two other men.

Marine and Fisheries.

APPENDIX No. 15.

STATEMENT of Sick Mariners' Dues collected, for the fiscal Year ended 30th June, 1893.

<i>Quebec.</i>	\$ cts.	<i>Nova Scotia—Concluded.</i>	\$ cts.
Gaspé.....	80 65	Canso.....	155 12
Montreal.....	4,582 94	Digby.....	161 88
New Carlisle.....	270 38	Halifax.....	7,015 38
Percé.....	49 44	Kentville.....	72 10
Quebec.....	7,347 02	Liverpool.....	130 54
Rimouski.....	258 22	Lockeport.....	43 08
St. Armand.....	1 88	Lunenburg.....	526 46
St. Johns.....	1,191 59	North Sydney.....	983 94
Sorel.....	113 66	Parrsboro.....	805 84
Stanstead.....	22 14	Pictou.....	447 74
Three Rivers.....	210 59	Port Hawkesbury.....	119 81
Total.....	14,128 51	Shelburne.....	182 78
		Sydney.....	2,480 89
<i>New Brunswick.</i>		Weymouth.....	233 54
Bathurst.....	170 43	Windsor.....	745 66
Chatham.....	1,631 70	Yarmouth.....	480 16
Dalhousie.....	514 40	Total.....	15,527 93
Dorchester.....	23 63		
Moncton.....	897 42	<i>Prince Edward Island.</i>	
Newcastle.....	545 76	Charlottetown.....	406 22
Sackville.....	331 72	Summerside.....	77 72
St. Andrews.....	145 24	Total.....	483 94
St. John.....	4,667 38		
St. Stephen.....	66 10	<i>British Columbia.</i>	
Total.....	8,993 78	Nanaimo.....	3,735 38
		New Westminster.....	60 10
<i>Nova Scotia.</i>		Vancouver.....	1,231 24
Amherst.....	442 36	Victoria.....	2,103 38
Annapolis.....	211 84	Total.....	7,130 10
Arichat.....	144 73		
Baddeck.....	128 16	Grand Total.....	46,264 26
Barrington.....	11 76		
Bridgetown.....	4 16		

F. GOURDEAU,
Accountant.

WM. SMITH,
Deputy Minister of Marine and Fisheries.

57 Victoria.

Sessional Papers (No. 11*.)

A. 1894

TWENTY-SIXTH ANNUAL REPORT

OF THE

DEPARTMENT OF MARINE AND FISHERIES

FISHERIES

1893

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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

1894

[No. 11*—1894] *Price 35 cents*

Fisheries Report.

To His Excellency the Right Honourable Sir John Campbell Hamilton-Gordon, Earl of Aberdeen, Governor General of Canada, &c., &c.

MAY IT PLEASE YOUR EXCELLENCY :

I have the honour to submit herewith, for the information of Your Excellency and the Legislature of Canada, the Twenty-sixth Annual Report of the Department of Marine and Fisheries, on the Fisheries of the Dominion.

I have the honour to be
Your Excellency's most obedient servant,

CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA, 1st April, 1894.

Fisheries Report.

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REPORT

OF THE

DEPUTY MINISTER.

To the Honourable

Sir CHARLES HIBBERT TUPPER, K.C.M.G.,
Minister of Marine and Fisheries.

SIR,—I have the honour to report on the transactions of the Fisheries Branch of this department for the fiscal year ended the 30th June last, and to give an account of a portion of the business up to date.

This report contains statements of expenditure, receipts, a report on Canadian Fishery Exhibits at the World's Fair, Chicago, and treats of fishing bounties, oyster culture, artificial fish drying, fisheries of the great lakes, whitefish, close season on the River Detroit, International Fisheries Commission, extracts State laws United States contiguous waters, pound-nets in inland waters, the preservation of the fisheries, fish-ways, the fisheries of British Columbia, extract of a report of a select committee of United States Senate on relations with Canada, the Behring Sea Question, pelagic fur sealing, the Fisheries Protection Service, Fisheries Intelligence Bureau, and fish hatching.

The report also includes notes of a tour of inspection in the Maritime Provinces, suggestions for a Marine Station in the Dominion and other papers by Professor Prince, and the following appendices:—

- No. 1. Schedule of Fishery Officers in the Dominion.
- No. 2. Detailed statement of Fishing Bounty Claims for 1892.
- No. 3. Fishery Protection Service, by acting Commander O. G. V. Spain.
- No. 4. Detailed statement of the Fisheries Intelligence Bureau.
- Nos. 5, 6, 7, 8, 9, 10, 11, 12, Inspectors' Reports.
- No. 13. Fish Culture.

EXPENDITURE.

The subdivision of the expenditure is as follows:—

Service.	Expenditure		Vote.	
	\$	cts.	\$	cts.
Fisheries	72,314	68	104,900	00
Fish-breeding	47,322	49	48,000	00
Fisheries protection service	106,805	39	109,422	50
Fishing bounty	159,752	14	160,000	00
Miscellaneous expenditure	100,602	14	104,060	00
Total	486,796	84	526,382	50

The details are printed in the Auditor General's report under the proper heading.

In addition to the above, the following summary shows the salaries and disbursements of fishery officers in the several provinces, together with the expenses for maintenance of the different fish-breeding establishments throughout the Dominion:—

Service.	Expenditure	Vote.
	\$ cts.	\$ cts.
Fisheries, Ontario	20,116 91	22,000 00
do Quebec	11,761 34	16,000 00
do New Brunswick	13,721 05	21,000 00
do Nova Scotia	19,444 22	20,500 00
do Prince Edward Island	2,847 60	4,900 00
do Manitoba	2,162 55	4,500 00
do North-west Territories	1,770 41	4,000 00
do British Columbia	5,490 60	10,000 00
Total	79,314 68	104,900 00
Fish-breeding, Ottawa hatchery	1,135 88	
do Newcastle do	2,697 69	
do Sandwich do	7,361 08	
do Tadoussac do	3,065 25	
do Gaspé do	1,794 08	
do Magog do	1,406 09	
do Restigouche do	3,072 37	
do Bedford do	1,663 92	
do Sydney do	644 66	
do Miramichi do	2,369 10	
do St. John Riv. do	2,619 03	
do Fraser River do	3,630 68	
do Bay View do	2,736 64	
Building hatchery at Selkirk	6,943 35	
General account	6,128 67	
Total	47,322 49	48,000 00

This expenditure by provinces is subdivided as follows:—

EXPENDITURE.

	\$ cts.	\$ cts.
<i>Ontario.</i>		
Salaries of officers	11,157 19	
Disbursements of officers	7,533 48	
Miscellaneous	1,426 24	
Total		20,116 91
<i>Quebec.</i>		
Salaries of officers	8,039 25	
Disbursements of officers	3,599 53	
Miscellaneous	122 56	
Total		11,761 34
<i>New Brunswick.</i>		
Salaries of officers	10,911 22	
Disbursements of officers	4,647 21	
Miscellaneous	162 62	
Total		15,721 05

Fisheries Report.

EXPENDITURE—*Concluded.*

	\$	cts.		\$	ct
<i>Nova Scotia.</i>					
Salaries of officers.....	12,040	74			
Disbursements of officers.....	7,293	98			
Miscellaneous.....		109	50		
Total.....				19,444	22
<i>Prince Edward Island.</i>					
Salaries of officers.....	2,223	82			
Disbursements of officers.....		564	48		
Miscellaneous.....		59	30		
Total.....				2,847	60
<i>Manitoba.</i>					
Salaries of officers.....	1,215	00			
Disbursements of officers.....		931	38		
Miscellaneous.....		16	17		
Total.....				2,162	55
<i>North-west Territories.</i>					
Salaries of officers.....	923	50			
Disbursements of officers.....		836	32		
Miscellaneous.....		10	59		
Total.....				1,770	41
<i>British Columbia.</i>					
Salaries of officers.....	3,483	32			
Disbursements of officers.....		852	20		
Miscellaneous.....		1,155	08		
Total.....				5,490	10
Grand Total.....				79,314	68

FISH-BREEDING.

	\$	cts.	\$	cts.
<i>Newcastle Hatchery.</i>				
Salaries.....	617	50		
Miscellaneous expenditure.....	2,080	19		
Total.....			2,697	67
<i>Sandwich Hatchery.</i>				
Salaries.....	1,182	00		
Miscellaneous expenditure.....	6,179	08		
Total.....			7,361	08
<i>Tadoussac Hatchery.</i>				
Salaries.....	650	00		
Miscellaneous expenditure.....	2,415	25		
Total.....			3,065	25
<i>Gaspé Hatchery.</i>				
Salaries.....	400	00		
Miscellaneous expenditure.....	1,394	08		
Total.....			1,794	08
<i>Magog Hatchery.</i>				
Salaries.....	600	00		
Miscellaneous expenditure.....	806	09		
Total.....			1,406	09
<i>Restigouche Hatchery.</i>				
Salaries.....	800	00		
Miscellaneous expenditure.....	2,272	37		
Total.....			3,072	37
<i>Bedford Hatchery.</i>				
Salaries.....	973	89		
Miscellaneous expenditure.....	690	03		
Total.....			1,663	92
<i>Sydney Hatchery.</i>				
Salaries.....	401	66		
Miscellaneous expenditure.....	243	00		
Total.....			644	6
<i>Miramichi Hatchery.</i>				
Salaries.....	530	00		
Miscellaneous expenditure.....	1,839	10		
Total.....			2,369	10
<i>St. John River Hatchery.</i>				
Salaries.....	600	00		
Miscellaneous expenditure.....	2,019	03		
Total.....			2,619	03
<i>Fraser River Hatchery.</i>				
Salaries.....	575	00		
Miscellaneous expenditure.....	3,055	68		
Total.....			3,630	68

Fisheries Report.

FISH-BREEDING—*Concluded.*

	\$ cts.	\$ cts.
<i>Ottawa Hatchery.</i>		
Salaries	700 00	
Miscellaneous	438 88	
Total		1,138
<i>Bayview Hatchery.</i>		
Salaries	600 00	
Miscellaneous expenditure	2,136 64	
Total		2,736 64
Building new hatchery at Selkirk		6,943 35
<i>General Account.</i>		
Salaries	3,400 00	
Miscellaneous expenditure	2,782 67	
Total		6,182 67
Total, Fish-breeding		47,322 49
Total salaries and disbursements of fishery officers		79,314 68
MISCELLANEOUS.		
Building fish-ways	2,704 35	
Legal and incidental expenses	2,705 26	
Canadian fisheries exhibits and Ottawa hatchery	757 01	
Expenditure in connection with the distribution of fishing bounties	4,671 77	
Survey of oyster beds	4,826 10	
Issuing <i>modus vivendi</i> licenses	554 92	
Columbian Exposition	6,651 81	
Behring Sea	74,025 83	
International Fisheries Commission	1,018 56	
Prizes for models of fishing boats	749 28	
Collecting data respecting fur seals, 1892 and 1893	1,937 25	
Total		100,602 14
Grand Total		227,239 31

FISHERIES PROTECTION STEAMERS—1892-93.

	\$ cts.	\$ cts.
<i>Steamer "Acadia."</i>		
Wages of officers and men	7,613 10	
Provisions	2,296 23	
Fuel	1,893 19	
Repairs	1,842 55	
Miscellaneous expenditure	1,959 63	
Total		15,604 70
<i>Steamer "La Canadienne."</i>		
Wages of officers and men	7,561 03	
Provisions	1,924 45	
Fuel	1,649 45	
Repairs	1,153 54	
Miscellaneous expenditure	2,600 33	
Total		14,688 97

FISHERIES PROTECTION STEAMERS, &c.—Continued.

<i>Steamer "Stanley."</i>		\$	cts.	\$	cts.
Wages of officers and men.....		3,697	63		
Provisions.....		1,141	68		
Fuel.....		1,284	00		
Repairs.....			9 70		
Miscellaneous expenditure.....			575 23		
Total					6,708 24
<i>Steamer "Curlew."</i>					
Wages of officers and men.....		5,204	31		
Provisions.....		1,594	89		
Fuel.....		1,720	21		
Repairs.....		6,089	00		
Miscellaneous expenditure.....		1,685	64		
Total					16,215
<i>Steamer "Petrel."</i>					
Wages of officers and men.....		1,783	28		
Miscellaneous expenditure, including contract for construction.....		30,063	45		
Total					31,846 73
<i>Steamer "Constance."</i>					
Wages of officers and men.....		5,220	95		
Provisions.....		1,294	82		
Fuel.....		1,447	59		
Repairs.....		1,426	65		
Miscellaneous expenditure.....		2,407	61		
Total					12,808 62
<i>Steamer "Bayfield."</i>					
Wages of officers and men.....		428	63		
Provisions.....		174	80		
Fuel.....		434	04		
Miscellaneous expenditure.....			56 36		
Total					1,093 83
<i>Schooner "Vigilant."</i>					
Wages of officers and men.....		3,494	69		
Provisions.....		1,284	13		
Fuel.....			49 42		
Repairs.....			722 53		
Miscellaneous expenditure.....			622 98		
Total					6,291 75
<i>Schooner "Kingfisher."</i>					
Wages of officers and men.....		2,023	80		
Provisions.....		731	71		
Charter.....		1,962	50		
Miscellaneous expenditure.....			576 67		
Fuel.....			48 47		
Repairs.....			3 69		
Total					5,346 84
General account, miscellaneous expenditure.....					4,521 50
Fisheries Intelligence Bureau.....					1,791 49
Total					116,917 82
Less—Amount paid for steamer "Constance" by Customs Department.....					10,112 43
Net total					106,805 39

Fisheries Report.

FISHERIES PROTECTION STEAMERS, &c.—*Concluded.*

RECAPITULATION.		\$	cts.
Steamer "Acadia"		15,604	70
do "La Canadienne"		14,688	97
do "Stanley"		6,708	24
do "Petrel"		31,846	73
do "Constance"		12,808	62
do "Curlew"		16,215	12
do "Bayfield"		1,093	83
Schooner "Vigilant"		6,291	75
do "Kingfisher"		5,346	84
General account		4,521	53
Fisheries Intelligence Bureau		1,791	49
Total		116,917	82
LESS—Amount paid for steamer "Constance" by Customs Department		10,112	43
Net expenditure, Fisheries Protection Service.		106,805	39

STATEMENT of Fisheries Revenue paid to the credit of the Receiver General of Canada, for the Fiscal Year ended 30th June, 1893.

	\$	cts.	\$	cts.
Ontario, rents, license fees and fines	30,623	09		
Quebec do do	7,471	70		
Nova Scotia do do	6,782	02		
New Brunswick, rents, license fees and fines	7,831	53		
P. E. Island do do	304	10		
Manitoba do do	1,464	68		
N. W. Territories do do	197	00		
British Columbia do do	40,264	00		
Proceeds of sale of speckled trout fry	1,352	75		
Sale of fish from Newcastle Hatchery	1,369	61		
Fines imposed on U. S. fishing vessels	4,686	25		
LESS—Refunds			102,346	73
			3,732	01
Licenses to U. S. fishing vessels			98,614	72
			12,925	60
Total			111,540	32

COMPARATIVE Statement of Expenditure and Revenue of the

	1884-85.		1885-86.		1886-87.		1887-88.	
	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Ontario.....	17,135 98	11,914 37	17,900 74	15,917 62	19,534 01	15,063 57	19,860 52	18,251 25
Quebec.....	13,531 77	3,325 35	13,938 21	2,963 75	14,966 55	3,804 66	13,463 37	5,394 99
New Brunswick.	14,892 87	4,650 16	15,719 36	4,078 10	16,944 87	4,417 52	20,533 20	7,625 64
Nova Scotia....	17,503 45	2,616 28	17,852 33	2,166 53	18,092 21	1,585 28	18,308 02	3,905 44
P. E. Island ...	3,028 03	40 00	3,187 73	40 00	4,044 49	128 00	3,402 51	.....
Manitoba and N. W. Territories.	763 00	.....	1,920 73	.....	2,468 25	5 00	2,816 64	819 25
B. Columbia ..	1,437 13	365 50	1,878 53	922 50	5,860 72	943 50	3,661 83	6,934 55
Fish-breed'g and fish-ways.....	43,879 82	.....	44,038 80	.....	37,864 22	.....	41,082 04	.....
Fisheries Pro- tective Service.	31,514 07	.....	37,613 30	.....	134,340 12	.....	77,102 98	.....
Miscellaneous...	9,529 44	.....	10,350 43	.....	11,327 77	.....	13,498 56	.....
Totals	153,215 56	22,911 06	164,400 16	26,088 50	265,443 21	25,947 53	213,729 67	42,931 12
Fish'g bounties	155,718 98	.....	161,597 39	.....	160,903 59	.....	163,757 92	.....

Fisheries Report.

Fisheries Department, from 1st July, 1884, to 30th June, 1893.

1888-89.		1889-90.		1890-91.		1891-92.		1892-93.	
Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
19,264 98	24,266 06	14,539 87	23,666 96	15,540 30	26,517 70	15,155 83	25,368 90	20,116 91	30,623 09
12,991 63	3,390 79	9,670 94	5,409 81	10,666 98	3,642 14	10,917 36	4,742 76	11,761 34	7,471 70
20,298 00	8,282 88	14,914 95	8,834 35	16,082 77	7,193 69	15,707 98	6,334 83	15,721 05	7,831 53
20,201 09	2,744 23	17,395 24	5,424 95	17,844 19	5,582 65	18,755 86	3,357 42	19,444 22	6,782 02
3,746 69	140 00	3,113 21	302 88	3,242 25	667 00	1,835 65	166 00	2,847 60	304 10
2,848 16	848 00	3,604 70	794 00	3,609 03	1,234 00	3,593 43	1,079 00	3,932 96	1,661 68
4,333 63	6,416 00	3,634 41	11,367 50	4,320 53	12,859 02	6,158 17	8,192 48	5,490 60	40,264 00
41,315 12	352 50	39,126 91	.....	39,496 45	1,286 50	43,957 74	178 00	47,322 49	
69,693 82	.....	64,434 66	1,176 38	83,050 16	1,934 49	93,397 40	.....	106,805 39	
10,912 18	.....	9,313 92	.....	13,382 28	.....	17,449 06	.....	100,602 14	
205,605 30	46,440 46	178,748 81	56,976 83	207,234 94	60,917 19	226,928 48	49,719 39	486,796 84	
148,990 63	.....	149,999 85	.....	165,967 22	.....	156,892 25	.....	159,752 14	

Proceeds of sale of speckled trout fry	1,352 75
Sale of fish from Newcastle Hatchery	1,369 61
Fines imposed on U. S. fishing vessels	4,686 25

LESS—Refunds	102,346 73
	3,732 01

Licenses to U. S. fishing vessels	98,614 72
	12,925 60

111,540 32

REPORTS OF INSPECTORS OF FISHERIES.

The early date at which this report has to be submitted to Parliament, at the opening of the session, precludes the possibility of giving full statements of the yield and value of the fisheries of the Dominion during the current calendar year, as fishing is still being carried on in many places while the present report is being prepared.*

All that can be done is to submit a concise report showing the general results of the year's fishing. Full reports, with statistics, will be subsequently published in Appendix No. 5. Meanwhile, the following summary is submitted:—

ONTARIO.

Very little information has been received from the local fishery officers up to date, but from the reports on hand it is expected that the yield of fisheries in this province will be about the same as last year, especially on the Great Lakes. The number of persons engaged in the fisheries will not be larger than that of other years, the object of the department being to curtail fishing as much as possible in certain localities, in order to avoid possible injury by over-fishing.

NOVA SCOTIA.

In district No. 1, comprising the Island of Cape Breton, Inspector Bertram reports that although the fishery statistics of his division have not yet been fully collected, he is, however, in a position to state that the cod fishery will show an increase. During the past few years, in the first part of the season, codfish were scarce on the inshore fishing grounds, but towards the autumn they became much more abundant, and the best catches were made in October, November and December. A marked feature of this fishery is the influence of the heavy east and north-east storms in causing codfish to work inshore. After these storms, boat fishermen find the fish more abundant. This has been the experience for several years past. Complaints are sometimes heard to the effect that cod are kept on the outside banks in mid-summer by vessels throwing the offal of fish overboard. A remedy for this evil would be for fishermen to club together and build, or purchase, a class of vessels suitable for outside fishing, as has been done in other parts of Nova Scotia where the advantages for prosecuting this fishery are not so great as in Cape Breton. The Government has very wisely encouraged deep-sea fishing by increasing the bounty to fishing vessels, and there is no doubt but that cod fishing in vessels is far more profitable than in boats. The herring fishery, which is the most important to Cape Breton fishermen, unfortunately proved almost a total failure this year. A few barrels were taken in the early part of the season; but the mid-summer run, known as "Cape Breton July herring," did not strike inshore. No reasons are adduced, and as these fish are largely used for home consumption, the failure of this fishery will be severely felt through the whole of Cape Breton Island. Mackerel will show an average catch. The fact that a larger quantity of these fish are not caught is due to the fishermen rather than to a scarcity of the fish. No attempt is made to fish with hook and line. A limited number of gill-nets are set, and indifferently attended to. The only vessel engaged in the mackerel fishery in

* All the reports and statements of inspectors have been received since the above was written and appear as appendices to this report.

Fisheries Report.

this district did exceptionally well, her owners and crew receiving good returns for their time and outlay. This is further evidence of the proper mode of carrying on the industry. The salmon fishery will show an increase, particularly in the county of Inverness, where fully one hundred and fifty per cent more salmon were taken during recent years than ten years ago. This is undoubtedly due to the fact that the spawning grounds are better protected than formerly. Several firms are engaged buying salmon from the fishermen and shipping them, packed in ice, to Canadian and United States' markets. The lobster fishery will show a large increase, these crustaceans having been more abundant than in the previous year, and of good quality. Storms were not so frequent, and the extension granted by the department proved a great boon, particularly to the fishermen of Gabarus and Fourchu who, without this, would have been in destitute circumstances owing to the failure of other branches of the fisheries. Up to 1892, smelt fishing in this district was in its infancy. During that year, no more than twelve bag-net licenses were issued, while in 1893 there were thirty, and the number will very likely be increased this season. The tidal waters of River Inhabitants, county of Richmond, is the principal place for this fishery. The catch is mostly shipped to the United States. Gaspereaux will show a decrease and trout an average catch.

The close seasons have been better observed, and less illegal fishing took place. The staff of fishery overseers and guardians is more efficient; and the rivers were well protected. Fishery courts were held in each of the four counties of Capé Breton Island; thirty-three cases were tried, twenty-eight convictions obtained, and five cases dismissed. Four convictions on view were made. The various divisions requiring special attention were frequently visited. The present system of collecting and paying fishing bounty claims gives general satisfaction. Under this system, there is very little chance for dishonest persons to practice fraud, and irregularities can easily be avoided.

In district No. 2, which comprises the counties of Cumberland, Colchester, Pictou, Antigonish, Guysborough, Halifax and Hants, Inspector Hockin reports that he has reason to believe that the yield of the fisheries will be an average one, slightly in excess of that of last year. The salmon fishery on the Atlantic coast may show a decrease, but this will be more than made up by the increase in the Strait of Northumberland. The catch of alewives will be nearly the same as last year. Smelts will show an increase. Cod may yield an increase of from five to ten per cent. The catch of herring will be under that of last year, probably ten per cent. In the eastern portion of this district, mackerel will probably show a falling off of twenty per cent, but this may be partially made up by some large catches of fall mackerel on the western portion. The past season proved a prosperous one for the lobster fishery. The weather was favourable, and the traps could be regularly visited. The yield will probably exceed that of last year by ten per cent. Squid, which are exclusively used for bait, and as such have become a merchantable fish, were abundant.

In district No. 3, which comprises the counties of Lunenburg, Queen's, Shelburne, Yarmouth, Digby, Annapolis and King's, Inspector Kinney reports very little improvement in the catch of cod, although prices ruled somewhat higher, which helped the fishermen to some extent. The trade in "Finnan Haddies" in Digby County has become an important business, requiring an almost unlimited supply of haddock, for which good prices are obtained. The herring fishery proved

an almost total failure; the catch of mackerel also shows a decline. Alewives will show an increase. The lobster industry is on the increase. This season's catch will be considerably in advance of that of 1892.

NEW BRUNSWICK.

In district No. 1, which comprises the county of Charlotte, including the islands of Campobello, Grand Manan, and Passamaquoddy Bay, Inspector Pratt reports that the yield of the fisheries will be equal to that of 1892. With few exceptions, the fishing grounds yielded good returns, and good markets were found for all the catch, at remunerative prices.

For some unknown reason, the schools of large herring did not come into the Bay of Fundy last winter, and little was done in that branch of the business until spring. The catch of lobsters was about the same as in 1892, with more men engaged in the fishery, and prices considerably higher than during any previous year. Cod will show a decrease. Hake and haddock will show an increase owing to the fact that the fish were more abundant and to the appearance of fewer dog-fish in the bay. The catch of pollock was about the same. Mackerel were scarce. Trout fishing was about the same as last year, affording ample enjoyment to the large number of sportsmen who yearly visit the lakes and rivers of this district.

In district No. 2, which comprises the counties of Restigouche, Gloucester, Northumberland, Kent and Westmoreland, Inspector Chapman reports that he feels quite sure the aggregate value of fish caught in his district will amount to upwards of \$2,750,000, and exceed the yield of 1892 by more than half a million dollars; being nearly double that of 1889, or about equal to the whole catch of New Brunswick for that year. This increase occurred in the coast and river fisheries, showing the advantages of an improved patrol system and better protection generally. The breeding pool, and spawning beds of rivers were full of salmon in the fall. Parr were more abundant than for twenty years past; in fact, they were so numerous that they were, in some cases, presumed to be alewives which had remained in the rivers.

Shad will be about the same as last year. There has been an enormous increase in the number of salmon caught, especially in the Miramichi River and along the coast of Gloucester. The whole catch for 1893, will be nearly double that of 1892.

A large quantity of herring was taken in the spring everywhere on the coast, for food and bait. At some points, these fish were so abundant that rows of spawn were washed ashore. Fall herring were also more abundant than in past years.

Upwards of three million more pounds of smelts were caught than in 1892. Notwithstanding the heavy and continuous storms in August and September, which caused a heavy loss of property and several lives, the yield of cod was larger than for several years past. Up to the 10th of August it was 50 per cent better than at the same time last year, and the fish continued to be abundant up to a late date in the fall; fishing would have continued successful had it not been for stormy weather

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Mackerel did not remain on the coast as long as during the years before. There was a smaller quantity taken, but of better quality. Owing to the removal of prohibition against bass fishing on the Miramichi, a large increase will be returned. The fish taken with hook and line were generally larger than those in 1892. Though there may be a falling off in some places in the catch of lobsters, the aggregate yield will be slightly in excess of that of last year. About the same quantity of oysters were taken as last year, notwithstanding the regulation which prohibits their being fished for through the ice.

In district No. 3, which comprises the counties of Albert, St. John, King's, Queen's, Sunbury, York, Carleton and Victoria, the catch of fish will exceed that of 1892, by a considerable amount. This is principally due to a larger catch of sea-fish in the county of St. John, such as herring, cod, hake, haddock and halibut. Sardines were reported to be more plentiful than for many years past, and prices ruled higher than last year owing to scarcity in the lower part of the bay. The fishing season for shad was very short and few were taken.

QUEBEC.

On the coast of Labrador cod fishing was good, and so was the salmon fishery generally. Around Anticosti Island, cod fishing was much better than last year; herring fishing middling, and lobster fishing poor. At Magdalen Islands, the cod fishery was fair; mackerel fishery very good; herring and lobster fisheries good. From Ste. Anne des Monts to Gaspé, the cod fishery was better than last year; the herring fishery abundant, and the salmon fishery middling. In the Bay des Chaleurs, the cod fishery was good, although the fishermen lost a great deal of time, owing to stormy weather. The herring fishery was middling, the lobster fishery, as well as the salmon fishery, good. Mackerel fishing failed entirely.

PRINCE EDWARD ISLAND.

Although full returns of the yield of the fisheries are seldom complete before the end of the calendar year, sufficient information has been received to enable the inspector for the above named province to estimate pretty accurately the general result of the season's operations. The catch of cod was small, fish having been scarce during the whole season, and the weather stormy. Mackerel will also show a great falling off. Some very good catches were made during the first part of the season, but the stormy weather broke the schools and very little fishing was done after the 20th August. There will be a decline of about 35 per cent in this fishery. Hake, haddock and halibut will also show a decrease. Spring herring were taken in great abundance at almost all fishing stations. Schools of large, fat herring strike inshore during the summer and fall months, but fishermen being then in pursuit of mackerel, pay little attention to them. The catch of herring, this year, was a good one; being fully equal to, if not above, the average.

Lobster fishing and canning were actively pursued during the season. There were 217 factories in operation, with an average of about 214,000 traps. Notwithstanding this large increase in plant, the catch was only slightly in excess of that of 1892. The lobsters were generally of a small size; but some large ones were caught, especially where the fishery was carried on in deep water.

The smelt fishery was above the average ; but, generally speaking, the season's operations were not satisfactory, as the yield of the staple branches of fishing industry fell considerably below that of an ordinary year.

BRITISH COLUMBIA.

The catch of salmon in the northern rivers was below the average. Compared with the pack of last season, there is a decrease of 700,000 lbs., and it is 137,000 lbs. less than the pack of 1891. The total yield for the province, exclusive of local consumption, is 29,169,908 lbs. Of this immense aggregate, the Fraser River has to be credited with 22,763,350 lbs.

During the season, there were 1,625 licenses issued for drift-net fishing ; being 350 more than in 1892. Of this number, 533 were for the northern rivers and the coast, and 1,072 for the Fraser River.

The experiment in curing white salmon, mentioned in last year's report as being tried at Port Essington by Mr. Bergman, did not prove a success ; the local demand for these fish has, however, been larger than formerly, and a large number have been salted.

The export of halibut, or other kinds of sea-fish has not increased to any extent since last year. The coasts of this province are teeming with food fishes of the finest quality, but the capital and knowledge required have not yet been jointly applied in the development of what will, in the near future, prove to be a source of wealth to thousands. In the meantime, a company in New Westminster is engaged shipping halibut to eastern markets by the car load ; but, owing to lack of capital, with an insufficient outfit.

The quantity of dog-fish oil manufactured this season will show a considerable increase over that of any previous year.

On several occasions, when necessary, Howe Sound, Burrard Inlet, Boundary and Mud Bays, the Nicomekel, Serpentine, Campbell and Sumas Rivers, and a salmon river near Pender Harbour, were visited. From the latter, and from Campbell River, obstructions to the passage of fish were removed.

The creeks which empty into Harrison Lake were explored, for the purpose of ascertaining their suitability as hatchery sites.

On the Nicola River, dams which had been built by Indians across the stream, and which completely prevented salmon from reaching their breeding places, were demolished.

During the months of March and April, 5,764,000 fine, strong young salmon were distributed from the Government hatchery, and in September and October, 6,860,000 ova were laid in.

MANITOBA.

Mr. R. Latouche Tupper, who was appointed Inspector of Fisheries on the 21st September, 1893, reports that the year has been a successful one for the fishermen. The fishing tugs and boats left Selkirk on the 6th June, and the season's commercial fishing was over by the 8th October ; the companies stopping long before the close season began as they had sufficient fish to supply the market at a remunerative price. There were no disasters, or loss of life or boats on Lake Winnipeg. Storms on the fishing grounds were few, and consequently less fish were lost by inability to

Fisheries Report.

lift the nets at the proper time. All the commercial fishing is done in the northern, or larger, portion of Lake Winnipeg; the southern part being exclusively reserved for domestic fishing. As the domestic fishermen only commence working late in the fall and continue fishing through the first part of the winter, running their nets under the ice, no reliable figures can yet be given; but it is expected that the catch will be an average one, and that while it may turn out to be less in Lake Winnipeg, it will show an increase in Lake Manitoba.

All the lakes of Manitoba are shallow, and although the surface area of the different lakes is large, the extent of fishing waters is small. The utmost care must, therefore, be exercised in order to preserve and keep a constant supply of fish food. The expediency and wisdom of enacting and enforcing judicious restrictions and close seasons for the protection of fish is daily becoming more and more appreciated. The object of the Government is to perfect such laws as will secure, for all times, a source of income for those who live around these waters. Lakes Winnipeg, Manitoba and Winnipegosis, unlike those of Superior, Huron and Erie, are under the exclusive control of Canada, and unlike the latter cannot be depleted by foreign poachers, while the full benefit of protection can be realized by the residents.

The subject of proper close seasons will require early attention at the hands of the department. The fishery laws and regulations were strictly observed by the commercial fishermen. Offal of fish were properly taken care of. No waste of fish occurred through trying to handle too many nets with too few men; such as has been complained of in the past.

NORTH-WEST TERRITORIES.

The fisheries in Long Lake are increasing, owing to a strict observance of the fishing regulations and close seasons. In southern Alberta, the upper portions of streams are filled with various kinds of trout, and the lower reaches of rivers with pike, pickerel and suckers. Northern Alberta affords magnificent trout fishing, although from want of railway communications, it is difficult to get at the grounds. The lakes of the Saskatchewan district received a much needed rest last fall; Indians and Half-breeds being only allowed to fish during the close season for their own immediate use.

REPORT ON THE CANADIAN FISHERY EXHIBITS AT THE WORLD'S FAIR, CHICAGO.

To the Honourable

Sir CHARLES HIBBERT TUPPER, K.C.M.G., Q.C., M.P.,
Minister of Marine and Fisheries.

OTTAWA, 24th October, 1893.

SIR,—In compliance with your directions, I proceeded to the World's Fair at Chicago, on the 16th ultimo, for the purpose of inspecting the Fishery exhibits of Canada as compared with similar exhibits of other countries, and to represent you at the Fishermen's Convention and read a paper on the Fisheries of Canada.

I herewith hand you a copy of the paper which I read at the Convention referred to, giving a condensed account of our Canadian Fisheries, their extent, commercial value, and the means taken to protect them, which I learn has been published among the proceedings of the Fishermen's Convention, in the *Fishing Gazette* of New York.

With reference to our exhibits, I found a crowd of people always present when I visited our court in the Fisheries building, and judging by their remarks, which I heard, I am of opinion that they were very much appreciated and admired by the masses of the people who were constantly circulating amongst them, and examining them with the greatest interest.

Taking our exhibit as a whole, of stuffed fish, including the whale, sturgeon, seals, sharks, preserved, canned, commercial, pickled and dry fish, fish oil and fish-eating birds, models of boats and trap-nets, I am of opinion that the exhibits of no other country or state in the Fishery building could compare with them.

I saw in some of the courts of other places some fine specimens of fish which did not represent real fish like the Canadian specimens, but were made of composition material such as gelatine or plaster of Paris, and beautifully painted and coloured so as to represent the real fish with a life like appearance. I do not consider that such imitation specimens of fish, although admirably got up, could at all compare with our beautiful specimens of real fish.

An object of great interest, however, to the masses of the people was the fresh and salt water live fish exhibited by the United Fish Commission and Pennsylvania Fish Commission. The crowds of people that were constantly inspecting these most interesting specimens of fish life, rendered it most difficult to get sufficiently near the glass cases to obtain a close view of the numerous specimens of fish swimming about in their native element, and salt water from the coast was constantly supplied for the salt water fish. The establishment and maintenance of these aquaria must have been very expensive, but it was well worth the cost, as I saw nothing at the fair which seemed to possess more attraction for the people than this beautiful collection of live fish.

If sufficient funds could have been available for Canada to have had a hatchery for salmon or other fish, such as we had in London, and a hatchery for lobsters, it would have proved an immense attraction, but it would have been very expensive. A lobster hatchery would have been a great novelty, as but very few of the millions of people who have visited the Fair have ever had an opportunity of seeing such an establishment. A constant supply of salt water would have been the difficulty.

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I understand a small fish hatchery was in operation during a short time in the summer, exhibited by the Pennsylvania Fish Commission, but when I saw it the eggs representing the ova of the fish were glass eggs; the hatching apparatus, however, gave a very good idea of the *modus operandi* of hatching young fish.

I herewith attach a sketch of the Fishery Building, with its two annexes, showing the space occupied by the Canadian Fishery exhibit both on the floor and gallery. The space allotted to our Court was 6,000 feet on the ground floor and 2,000 feet in the gallery.

The trophy erected by our department illustrative of our fisheries, both sporting and commercial, was much admired, and did great credit to Mr. Cox, our Assistant Engineer and Architect, who had the entire responsibility of designing a suitable plan of a trophy and superintending its erection in the building.

It is much to be regretted, however, that the authorities who had the locating and arranging of the spaces in the fishery building, allotted the space for this beautiful trophy where it now is, in rather an obscure position, instead of allowing it to be placed in the centre of the building, where it would have been in a prominent position and seen by every one, immediately on entering the building from any of its approaches, east or west, north or south. The place which it should have occupied in the centre of the building was allotted as a concession, on which is erected a circular stand for the sale of lemonade, soda water and other refreshments.

The exhibits in the Canadian Court of the fishery building are all in excellent order and appear to great advantage, and no finer specimens of salmon can be found anywhere than in this collection. The specimens are real and we have no imitation ones made of gelatine or other materials.

I regret to notice that the freezer which was furnished by Messrs. Withrow and Hillock, of Toronto, was of no use for our exhibit as our officers could not get the temperature low enough to freeze any fish, and I understand the lowest point they could get the temperature down to was 32° or perhaps 30°, and consequently fish could not be reduced to a frozen state in it. This proved a great drawback to our exhibit, as it would have been very interesting to have exhibited some of our large fresh fish in the freezer, if we could have got the temperature low enough, such as we had at the London Exhibition, where fresh fish were kept in good condition for six months. If the cold storage building had not been burned, fresh fish could have been frozen there and exhibited in our freezer for some time in a frozen state.

The Canadian collection of exhibits contain about fifty-seven specimens of different kinds of fish for food; six specimens of fish eating animals; three specimens of different kinds of seals; over three hundred specimens of stuffed fish; nine cases of fish eating birds; three fishing pound-nets; two models of fishing stations and fish netting; one patent Hockin fish-way; one Atlantic fishing boat; one Lunenburg whale boat; one large sized revolving light from Chanteloup's establishment, in Montreal, which was very much admired; one dug-out red cedar canoe, from British Columbia; nine models of boats; four boxes dry codfish; one box of dry hake, three boxes of dry codfish, first class; one half barrel of dry codfish; one half barrel tongues and sounds; one half barrel salted trout; six half barrels of mackerel; one barrel mackerel; one barrel of eels; five barrels herring; one barrel shad; one barrel salmon; a large number of boxes of canned salmon;

canned lobsters, canned clams, canned sardines; some samples of cod liver oil, salmon oil, seal oil, rat-fish oil, dog-fish oil, and oulachon oil; about eighty fine specimens of fish in alcohol, exhibited in three large cases; Munn's collection of fine boneless codfish, put up in tin boxes; canned salmon; canned tongues; canned capelin smoked, in oil; glue; cod liver oil; refined seal oil used for making butterine. Many of our specimens of fish were tastefully arranged round the Canadian trophy. All the specimens were first class. Amongst our specimens of fish animals is a splendid white whale, a large horse mackerel, two large sturgeons and three sharks.

NORWAY.

Sixty-five specimens of plaster cast fish, which looked very good and natural; a good collection of fish oil; some samples of dry codfish, not very good; a number of samples of dry stock fish; a number of samples of pickled fish, none of the samples of fish appear to be as good as Canadian fish; ten models of fishing boats, very good; two polar bears and some skins; a number of specimens of canned fish; seven boats, not quite equal to ours; a collection of nets and traps. I do not think as a whole it could be compared to the Canadian collection.

RUSSIA.

A collection of canned fish; nine models of boats, and some barrels of pickled herring; nets, oils and fish leather. It could not at all be compared to our collection.

NEW SOUTH WALES.

Canned fish; shells; a few fish in alcohol; some fish oil; two cases of fish eating birds; two boats; four seals; some pictures of fish in water colours; one case lizards in alcohol. This was a very good collection.

FRANCE.

A very large collection of canned sardines of very superior quality, but nothing else.

GREAT BRITAIN.

A fine collection of hooks, lines, flies and outfitting materials for sportsmen, and some pickled fish.

GERMANY.

A fine show of nets and hooks, and some models of boats.

MEXICO.

One large fine seal, stuffed; one large fine sea turtle; a number of specimens of fish in alcohol; fine specimens of dried shrimps; a few specimens of dried fish; mother of pearl, shells, sponges, nets, flowers made of shells and fish scales. A small exhibit, but very fine.

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HOLLAND.

A fine large model of a Dutch fishing schooner taking in herring, with buoys and nets, giving a very good idea of their herring fishing.

JAPAN.

Samples of salted dried salmon; canned lobsters, salmon, prawns, mackerel, sardines and smoked herring; some fine samples of fish oil; kegs of pickled fish; dried salt fish; isinglass; fish hooks; oyster sauce; oyster pearls; fine specimens of fish in alcohol; crabs and lobsters, dried; four models of fishing boats, forming altogether a very good collection, with also some fine photographs of fish.

UNITED STATES FISH COMMISSION.

Twenty-two speckled trout made of gelatine composition, very good imitations of fish. A case of fish in alcohol. Two cases containing twenty-nine specimens of real stuffed fish. This was a very good collection. One hundred and fifty-nine specimens of fish made of gelatine and plaster, very good imitations. Seven fine specimens of seals; one large incubator; and several models and a fish-way.

STATE OF CALIFORNIA.

Thirty-nine specimens of fish made of gelatine and beautifully coloured.

STATE OF MAINE.

Twenty-nine specimens of fish of gelatine, very well done; six models of fishing schooners; six small pictures in oils, paintings of fishing scenes; and a few nets.

STATE OF WASHINGTON.

Thirty-nine specimens of real stuffed fish; three specimens of fish made of gelatine; thirty jars of specimens in alcohol; boxes of canned salmon; skeleton of a very large Pacific humpback whale, 47½ feet long, and 48 feet girth, which was stranded on the 9th July, 1892, on Long Island Beach, state of Washington. A dug-out canoe; canned salmon in steaks; a very fine specimen of a fur seal; eleven fish-eating birds; one otter. This is a very fine collection.

STATE OF NORTH CAROLINA.

A fishermen's camp used for fishermen camping out on the beach. Samples of oyster rakes; samples of shad fish which come in early in February and continue on through March, April and May. 2,500 yards of nets sometimes take 3,700 shad; one man caught last season 95,000 shad, mostly sent to New York. Seven specimens of living diamond-back turtles, worth \$50 a dozen, which grow in large numbers in that state. A fine collection of oyster shells and clams. A large oyster business is done in this state. Seventy specimens of fine shad and other fish. Three models of boats. Also a fine collection of fish-eating birds. The collection of North Carolina is very fine.

STATE OF MINNESOTA.

One hundred and one specimens of stuffed fish, very good; eleven cases of birds, mostly fish eating and water birds. A model birch bark canoe with Indian and squaw. This is a small collection, but very good.

EXHIBIT OF E. K. BURNHAM.

Mackerel in kits, barrels and canned; packages very good finish.

CITY OF GLOUCESTER.

A beautiful large model of Gloucester Bay, with 12 schooners and boats; also samples of fishing gear, nets, lines and hooks; very good.

STATE OF RHODE ISLAND.

A large case showing fish going into pound-nets; lobster traps and a large fishing boat; also other fishing traps and fishing gear; two large Manhattan fishing boats and gear; a small fishing boat; a pleasure boat; samples of fish in alcohol; a fish steamer for taking Manhattan; a purse seine model. Pictures showing fishing scenes about Manhattan oil and guano factories. The Rhode Island exhibit was very fine.

SAN DIEGO.

Specimens of fish in alcohol; seven specimens of stuffed fish; some water birds; some cases of fine pearl and other shells.

STATE OF OREGON.

A fine specimen of a fur Alaska seal; seven specimens of fine stuffed fish; some fine specimens of stuffed salmon and trout; two cases of mounted birds; fourteen specimens of fish in alcohol; one whale boat and model of salmon fishing boat; some boxes of canned salmon. This is a very fine exhibit although not large.

STATE OF OHIO.

One hundred and thirty-two specimens of fish, some real and some made of gelatine composition.

BRAZIL.

A large alligator, and some large fish from Pera; one stuffed tarpon, and some small stuffed fish.

Mr. Tobin exhibits a fish sealing machine and other machines. Mr. Tobin, through Messrs. Mann Brothers, Chicago, exhibits a fine collection of oyster pails and oyster tongs.

The American Net and Twine Company of Boston and New York, exhibit a fine collection of nets, cordage and twine.

The Board of Trade, New Bedford, Mass., exhibit a fine collection of whalebone, walrus tusks, fish oil, and a model; also whaling instruments and harpoons.

Fisheries Report.

Messrs John R. Neill & Company, of Boston, exhibit a fine collection of models of fish houses for smoking finnan haddies; models of a fishing schooner; a large sword-fish; lobster traps and fish nets; also pictures of fishing schooners and of the whole lobster business.

J. A. Miederdistkeks, of New York, exhibits a collection of Russian caviare and sea trout.

Mr. Maxham, of New York, exhibits eight large stuffed sturgeon and a fishing boat; also stuffed specimens of small fish in oil; smoked carp in cases.

J. G. Megler & Company, exhibit canned Columbia River salmon, all in different shapes; specimens of fish glue.

Messrs. Wolf & Reessing, showed specimens of canned sardines.

Messrs. Burrill & Morrill, of Portland, Maine, had a good collection of canned fish.

Mr. Booth, of Chicago, exhibited canned goods, oysters, clams and salmon; whole fish canned; and a large lobster; a seal and some shells. This was a very good private exhibit.

WEST ANNEX OF THE FISHERIES BUILDING.

State of Wisconsin.—Exhibits some fine specimens of live fish in fresh water. An aquarium of 25 tanks, containing black bass, trout, gar pike and common trout.

Roger's Fish-way in operation with running water.

Pennsylvania Fish Commission.—Exhibits in twelve tanks containing bass and trout in fresh water.

Forest and Stream Newspaper.—Exhibits a large tarpon fish, stuffed, weighing 205 pounds. Five specimens of stuffed fish, and pictures. A canoe weighing ten pounds. Three cases of birds and head of buffalo, moose, mountain goat, mountain sheep, red deer; caribou and elk.

Natchang Silk Company.—Private exhibit, showing the making by steam engine of silk fishing lines.

Wm. C. Harris.—Fifty-five oil paintings and a tarpon.

Osgoode Portable Boat Company of Michigan.—Four samples india-rubber folding boats.

The Acme Folding Boat Company.—Shows ten models of boats.

There was also a large collection of boats, canoes, skiffs, tents, and camp furniture in this building, exhibited by different parties.

Mr. Johnson exhibits a collection of trout and bass flies, hooks and fishing reels and rods.

Mr. Benson exhibits samples of fishing rods.

Mr. Spalding makes a similar exhibit.

EAST ANNEX TO THE FISHERIES BUILDING.

United States Fish Commission of Washington exhibited an aquarium for salt water fish, supplied with salt water from the sea. Twelve tanks of sea bass, sand sharks, sucking fish, file fish, salt water turtles, &c. The tanks in this aquarium were beautifully got up, with water running from fountains into the tanks. The specimens of fish were very fine.

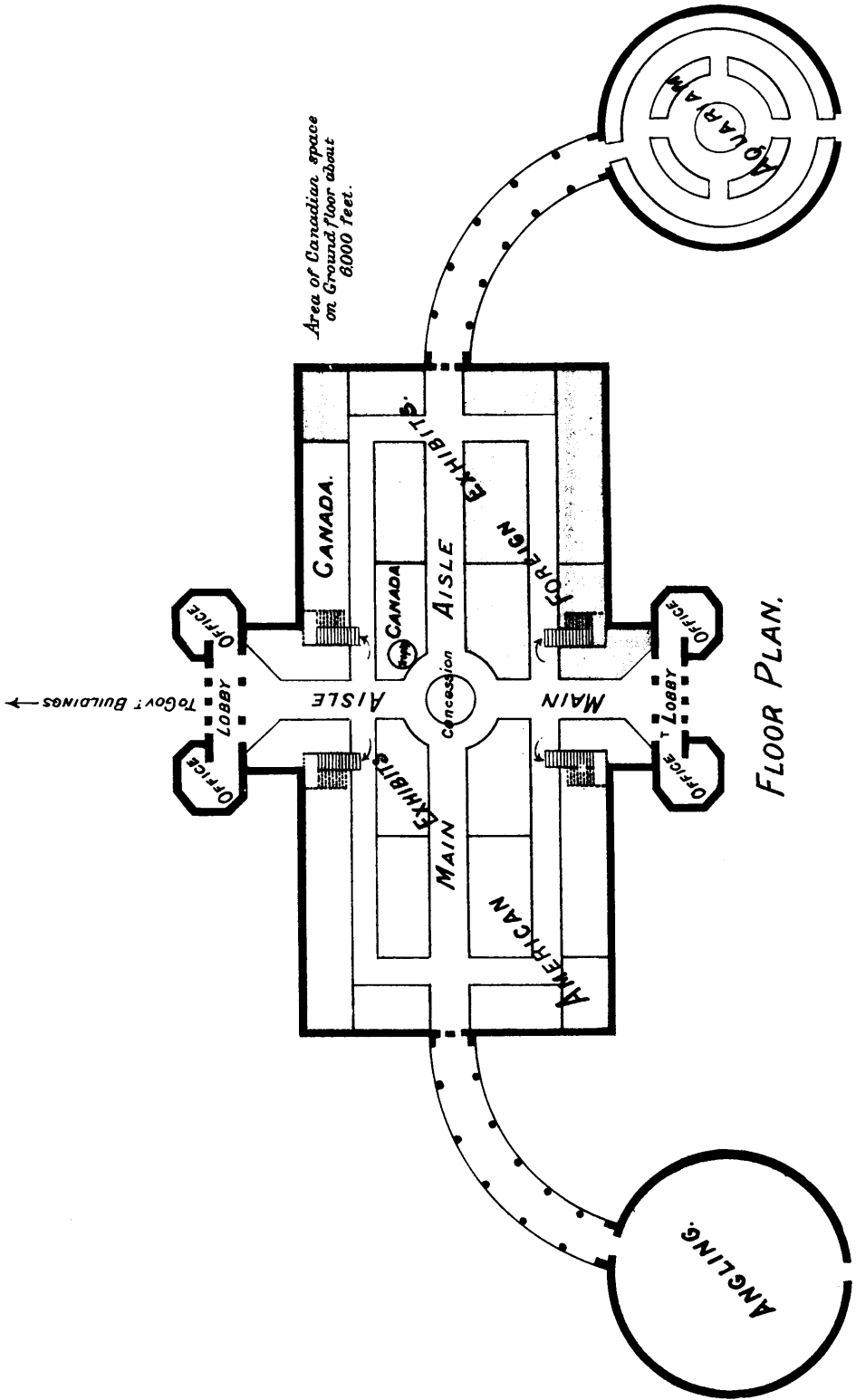
There was also a very fine collection of fresh water fish, supplied with water from Lake Michigan. In it were specimens of black bass, white bass, mud fish, cat-fish, eels, brook trout, sunfish, carp, gold fish, perch and suckers. There were thirty-three tanks containing fresh water fish in this aquarium. It was a splendid exhibition, and must have been very expensive to provide the tanks and maintain them.

I think that Canada's exhibits as a whole, were better than the exhibits of any other country or individual state exhibit, but if all the United States exhibits were taken together, including the aquaria, I consider they were more numerous, and in some respects superior, to the Canadian exhibit.

I think that in the Fisheries Building the aquaria was the most interesting exhibit, and was the greatest attraction to the masses of the people passing through the building, but a reference to the awards made by the Judges of the exhibits in this building will show that Canada's exhibits took a very high place indeed in the general collection of exhibits.

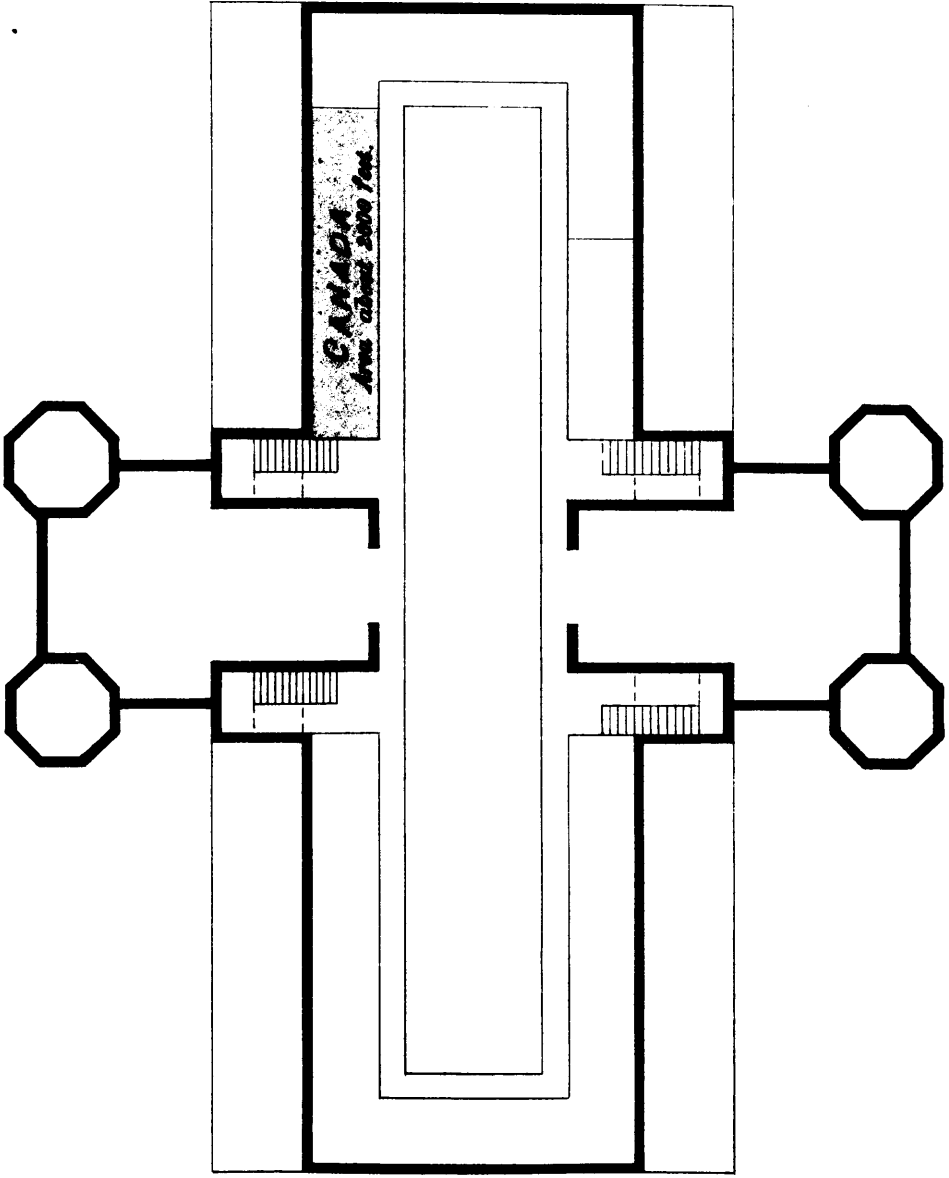
I have, sir, the honour to be
Your obedient servant,

WM. SMITH,
Deputy Minister of Marine and Fisheries.



Area of Canadian space
on Ground floor about
8000 feet.

FLOOR PLAN.



GALLERY PLAN.

Fisheries Report.

PAPER ON THE FISHERIES OF CANADA, READ ON THE 19TH SEPTEMBER, 1893, BEFORE THE FISHERMEN'S CONVENTION, AT THE WORLD'S FAIR, BY MR. WILLIAM SMITH, DEPUTY MINISTER OF MARINE AND FISHERIES OF CANADA.

On a recent occasion a communication was received by the Honourable the Minister of Marine and Fisheries of Canada, from Captain Collins, Chief of the Department of Fish and Fisheries at the Columbian Exhibition, extending to him an invitation to be present at the exercises to be held on Fishermen's Days, and also inviting him to address this meeting or read a paper before it, on any subject relating to fish or the fishing industries of Canada. He replied to that communication, informing Captain Collins that he regretted he was prevented by pressure of departmental work, and other public business, from complying with his request (having only recently returned from Paris where he had been engaged as Her Majesty's Agent, before the Behring Sea Tribunal of Arbitration), and that he desired me, as his deputy, to attend the meeting for him. I have now much pleasure in meeting you on this occasion, and at the same time, I avail myself of this opportunity, of conveying the thanks of my chief, the Honourable Sir Charles Hibbert Tupper, for the honour which has been shown him, in inviting him to this Convention. I am sure it would have given him much pleasure, if he could have arranged to attend it.

In his absence, therefore, I propose to address to you a few remarks, in connection with the subject of the Fisheries of Canada.

It has often been asserted that the fisheries were of great importance to almost all nations, especially to those whose territories are either entirely insular, or partially surrounded by the sea. In this respect, the fisheries of Canada are certainly among the most valuable of the whole world. As a national possession, and as a nursery for sailors, they are inestimable; and as a field for industry and enterprise, they may be said to be almost inexhaustible. Extending from the Bay of Fundy, and the Straits of Belle Isle, on the Atlantic Ocean, to the boundary of Alaska, on the Pacific Ocean, the sea and inland fisheries of the Dominion, which are the property of the citizens of Canada, are well known to be of great value. They are also in other respects of considerable importance to such of our people as are engaged in maritime pursuits, or, as is sometimes the case, combined with that of agriculture.

The principal localities in Canada in which fishing is carried on, do not usually present conditions favourable to the successful cultivation of the soil, being limited in extent and fertility, and subject to certain disadvantages as regards the climate. The prolific nature of the adjacent waters, and the convenience of their undisturbed use, are a necessary compensation for defects of soil and climate.

The sea coast line, extending over the fishing area, covers a distance of about 5,000 miles, from the Bay of Fundy to the Strait of Belle Isle, and over 7,000 miles on the coasts of British Columbia.

While the salt water inshore area, not including minor indentations, covers more than 15,000 square miles, abounding with fish life, the fact should not be lost sight of, that the fresh water area of that part of the great lakes belonging to Canada is computed at 72,700 square miles. This is not surprising, when the whole area of this wonderful chain of lakes, extending over 1,000 miles, is said to contain more than one-half the fresh water of the globe. Manitoba and the North-west Territories also contain large sheets of water, well stocked with the most excellent kinds of food fish.

The commercial value of the fisheries of Canada reached nearly \$19,000,000 for the year 1892, and was subdivided as follows, in the different provinces forming the Dominion :—

Nova Scotia.....	\$ 6,340,724
New Brunswick.....	3,203,922
British Columbia.....	2,849,493
Quebec.....	2,236,732
Ontario.....	2,042,198
Prince Edward Island.....	1,179,856
Manitoba and the North-west Territories.....	1,088,254

This does not include the value, probably amounting to \$2,000,000, of a large quantity of salmon and other fish consumed by the Indians and Half-breeds of British Columbia, Manitoba and the North-west Territories.

These figures are not by any means exaggerated, but are rather below than above the real value.

This arises from the fact that the fishermen are sometimes unwilling to give correct returns of their catch, under the erroneous impression that this might lead to increased taxation, and persons well informed on the subject have frequently asserted that the value of fish caught in Canadian waters is much in excess of the value as published in our blue books.

The varieties of fish which aggregate the largest values are cod, which yielded in 1892, a value of \$4,063,458; the salmon, \$2,243,000; the herring, \$2,035,630; the lobster, \$2,000,000; and the mackerel, \$1,347,000.

The most important deep-sea fishing grounds on the Atlantic are off the coasts of Nova Scotia, New Brunswick and Prince Edward Island; around the Magdalen Islands, the Baie des Chaleurs, the Island of Anticosti, and the coast of Labrador. In the Pacific Ocean, the fishing grounds are off the shores of British Columbia, although salmon is taken in large quantities in the Fraser River, and in the waters near its entrance. The waters on all our coasts team with the most valuable kinds of commercial fish, affording ample employment to a large number of vessels and men engaged in this industry.

Between the years 1869 and 1892, the principal commercial fisheries yielded as follows :—

Cod.....	\$ 90,930,324
Herring.....	44,258,161
Lobsters.....	39,693,811
Mackerel.....	34,120,501
Salmon.....	30,887,191
Haddock.....	11,299,513

The cod fishery is carried on in schooners of from 60 to 100 tons, with trawls or bultows, and trap-nets, within easy reach of the coasts of Nova Scotia and Labrador, or in boats, with hand lines, in shoaler water near land, where shelter is of easy access.

The Canadian cod is exported to Europe, South America and the West Indies, where it usually brings good prices, owing to its superior quality and the care taken in its preparation. Notwithstanding the enormous quantities of these fish caught every year, the supply shows but little sign of exhaustion, so far as Canada is concerned. Occasional fluctuations may occur, but these are due to storms or local circumstances, and not to a scarcity of fish.

Mackerel and herring are found in most Canadian waters. The former are abundant around the shores of Prince Edward and Cape Breton Islands, the Bay of Fundy, the Gulf of St. Lawrence, the Gut of Canso and around the Magdalen Islands. They make their first appearance about the beginning of July, and remain till the end of October. Our best market for mackerel is the United States, although some of these fish are sometimes shipped to England and the West Indies.

Fisheries Report.

Fishing for herring begins in the spring, and continues while the weather permits, until late in the fall. This fishery ranks next in importance to the cod fishery. The finest kind of herring are caught off the shores of the Island of Cape Breton and Labrador.

While the lobster fishery may be said to be much exhausted on the coasts of the New England States, the progress of this industry in Canada has been almost phenomenal.

In 1869, it only yielded \$15,275, while four years later it had reached \$1,000,000. In 1874, the figures had increased to \$2,000,000; while in 1881, the value of this fishery reached the highest point on record, nearly \$3,000,000. The returns for 1892, show that there are 626 canneries in operation, using 768,469 traps and other plant, valued at \$1,000,000. The quantity of canned lobsters amounted to 12,524,498 pounds, besides 6,012 tons disposed of fresh, or shipped alive to the United States, representing a catch during one single season of about 80,000,000 lobsters, valued at \$2,000,000. Some experiments have been made to ship lobsters alive to England, but considerable loss took place on the voyage across.

Although large numbers of salmon are annually taken on the Atlantic coast, this is nothing when compared to the phenomenal yield of this fish at the Fraser River and other rivers in British Columbia. The canning industry of that province has so quickly and so largely developed, that it is now one of its most important resources, and furnishes a most valuable article of export. For the past three years the pack of salmon in British Columbia has averaged 15,000,000 pound cans; while this year it is calculated that it will amount to 20,500,000 pounds. The weight of this enormous pack will aggregate over 10,000 tons. It may be mentioned that besides this large yield of salmon, large quantities of sturgeon, black cod, flounders, halibut, oulachons, and other valuable fish are also caught.

The far-famed Canadian oyster is so well and so favourably known as to make it almost unnecessary to mention it here. These delicious bivalves are found in great abundance all over New Brunswick and Prince Edward Island waters, and on some parts of the Nova Scotia coast. A professional oyster expert was recently imported from England, and is now doing good service, re-stocking the exhausted oyster beds.

Our inland lakes and rivers team with whitefish, salmon, trout, pickerel, bass, speckled trout, sturgeon and maskinongé. The most valuable of our inland fish is the whitefish, the yield of which amounted to 23,776,000 pounds in 1892, valued at \$1,500,000. Sturgeon, salmon-trout, pickerel and bass also form a valuable adjunct to the wealth of these inland waters.

The total number of men engaged in the fishing industry of Canada during 1892, was 63,678, using nets and other fishing gear, representing a capital of over \$7,500,000. About 1,000 schooners and steam vessels measuring 37,200 tons, valued at over \$2,000,000, manned by 8,330 sailors, were employed in this industry. 55,348 shore fishermen also fished, with 30,500 boats, valued at over \$1,000,000, with 4,500,000 fathoms of nets, worth \$1,475,000, besides other fishing gear, such as seines, pound-nets, traps, weirs, &c.

In order to ensure the permanency of the valuable industry which I have attempted to describe, the Canadian Government enforces efficient measures of protection. These consist of judicious laws and regulations, strictly carried out by a large staff of fishery officers, stationed at every place where fishing is carried on, by a force of armed cruisers employed on the Atlantic coast, and on the great lakes of Ontario; by the establishment of close seasons, intended to protect the fish at the most critical and important period of their existence, namely, during the spawning season; by a judicious system of leases and licenses through which the Government is enabled to regulate fishing in accordance with the requirements of each locality, or to check its undue expansion, when it is deemed necessary for the protection of the fish. With such power and authority available, there is very little danger of the supply being exhausted by over-fishing or by a prevalence of injurious practices.

As an adjunct to natural reproduction, the Canadian Government has, since 1859, called to its assistance artificial fish breeding. From very modest beginnings,

this science has reached very large proportions in Canada, where there are now fourteen fish hatcheries, disseminated all over the country, including one in British Columbia and one in Manitoba; one in Nova Scotia is for the exclusive hatching of lobsters. From these establishments, 136,000,000 fry, consisting of salmon, white-fish, salmon-trout and lobsters were planted in the several waters of the Dominion during the year 1892.

With the view of encouraging the development of the sea fisheries and the building of improved fishing craft, the Government of Canada annually distribute a sum of about \$160,000 among the fishermen of the Maritime Provinces. This bounty is paid on the basis of \$1.50 per ton to vessels, and \$3 per man to boat fishermen, with an additional dollar to the owner of the boat. The amount thus distributed during the past ten years exceeds \$1,500,000.

Our Government recently offered two prizes to be awarded for the best models of fishing vessels, with the view of encouraging a superior and safe class of deep-sea fishing schooners, and a number of handsome models have been received. Competent judges have been selected and the awards will soon be made public. By this means it is hoped that our fishing vessels will in future be built of the best models as regards speed, safety and carrying capacity.

Fisheries Intelligence Bureaux were inaugurated in Canada in 1889, and are becoming more and more popular. The usefulness of a system through which the movements of bait and fish can be daily ascertained and reported at the principal fishing stations is being each year more highly valued; and demands are constantly made for new reporting stations. There were fifty-five of these last year, dispersed along the coasts of the Maritime Provinces, from Campobello, in the Bay of Fundy, to the Magdalen Islands, in the Gulf of St. Lawrence.

One of the principal drawbacks experienced in Canada in the enforcement of the fishery laws and regulations, especially on the Great Lakes and other international waters, is the fact that our fishermen are sometimes placed at a disadvantage as compared with those of the neighbouring Republic. The operation of these necessary regulations naturally appears somewhat unfair to our people when their less hampered neighbours in United States waters, almost within their sight, are permitted to take fish at all times, and by means of all kinds of fishing apparatus, without let or hindrance, within the same geographical district.

The Canadian Government has been sometimes accused of protecting the fish for the benefit of our neighbours in the United States, and by a strict enforcement of the Canadian regulations, depriving Canadians of corresponding advantages.

In order to obviate, as much as possible, such a state of affairs, a Joint Commission, composed of Mr. Rathbun, a Member of the United States Fish Commission at Washington, which Commission has rendered good service to the fishery interests of the United States; and Dr. Wakeham, a Fishery Officer of experience, and Acting Commander of the Fishery Protection Service of Canada; was recently appointed to inquire into, and report upon, the modes of preventing injurious or destructive methods of fishing in the territorial waters of the United States and those of Canada, respectively, as well as in waters outside the territorial limits of either country; the prevention of the polluting or obstructing of such contiguous waters to the detriment of the fisheries, or of navigation; the adoption of close seasons to protect the fish during their breeding period; the encouragement of artificial fish culture, etc., etc. Dr. Wakeham was appointed by Royal Commission, signed by Her Majesty the Queen, and Mr. Rathbun by the President of the United States.

Another Commission, composed of Messrs. Samuel Wilmot, Superintendent of Fish Culture of Canada, an officer of great experience in fishery matters, and Mr. Edward Harris, also an experienced fisherman, of Ontario, is engaged in making researches on similar subjects, in Canadian waters. No doubt the result of the labours of both the foregoing mentioned Commissions, when published, will do much to dispel erroneous impressions heretofore prevailing, regarding the protection of fish in each country, and lead to joint action, which cannot fail to be most beneficial to the fishing interests of both countries, as well as to the fishermen engaged in this industry.

Fisheries Report.

As you are aware, the fisheries of the United States are under the control of the respective States bordering on the lakes and rivers common to both countries, while those of Canada are managed by the central or Federal Government at Ottawa, with the exception of the inland waters of New Brunswick, Quebec and Ontario, over which the Provincial Governments claim certain jurisdiction.

For the purpose of protecting the sea coast and inland fisheries of Canada, the Government employs about 400 officers, besides about 200 temporary guardians engaged at certain periods of the year to assist the regular officers, especially when fish are spawning. This service requires an annual expenditure of about \$150,000, including the amount expended on fish breeding.

Six steamers and two fast sailing schooners are also employed in protecting the territorial waters of Canada. The expenditure on account of this service alone amounts to about \$100,000 a year.

The fur-seal industry of British Columbia has grown to large proportions during late years. There was in 1892, a fleet of 66 schooners engaged in this industry, aggregating 4,456 tons, carrying 280 boats, 250 canoes, valued at over half a million dollars, and manned by 952 white men and 491 Indians. The catch amounted to 46,362 skins, valued at over \$600,000.

The progress of this industry has been gradual, but steady. Prior to 1878, very few seals were killed by Canadian sealers. Hunting was not then carried on farther out than about 20 miles from shore, during the months of April, May and June, by the natives. The seals were cautiously approached in canoes, and killed with spears while asleep on the surface of the water. The use of fire arms was studiously avoided. What a difference we see now, with a fine fleet of schooners sailing from British Columbia, and its improved equipment.

The catch of fur seals by Canadians, which is given in 1876, at 2,600 skins, only reached 9,195 skins in 1883, while in 1891, the number killed amounted to 53,000, with a value of \$795,000. This will show the great value of this industry, and the necessity of adopting proper means to ensure its protection and permanency.

By virtue of a treaty between the United States and Great Britain, signed at Washington on the 29th February, 1892, it was decided to submit the disputes which had arisen in the past relative to jurisdiction of the above-named countries over Behring Sea, and the fur-seal fishery, to an arbitration Tribunal composed of seven Arbitrators; two of whom were to be named by the President of the United States; two by Great Britain; one by France; one by Italy; and one by Sweden and Norway.

The Tribunal met at Paris, on the 23rd February, 1893, adjourning until the 23rd March, and the award was given on the 15th August, 1893.

The Tribunal decided against the contentions of the United States as to Behring Sea being a *mare clausum*, or closed sea; also that the United States had no exclusive rights of protection and property in the fur seals frequenting the islands of the United States in Behring Sea, when such seals were found outside the ordinary three-mile limit.

They further enacted the following regulations for the future protection and preservation of the fur seals in Behring Sea:—

1. A zone of sixty miles around the Pribyloff Islands, in which it is forbidden to kill any seals.
2. A general close season from 1st May to 31st July, during which it is forbidden to kill any seals;
3. Only sailing vessels, with fishing boats or canoes, to be allowed to kill seals during the open season;
4. Each fishing vessel licensed to engage in seal fishing to carry a distinguishing flag, prescribed by its Government;
5. Dates and localities of fishing to be entered in a log-book, as well as the number and sex of seals killed each day;
6. The use of nets, firearms and explosives is forbidden. Shot guns only to be used outside Behring Sea, during the lawful season;

7. The two Governments to take measures to control the fitness of the men authorized to engage in fur seal fishing;

8. These regulations not to apply to resident Indians carrying on fur seal fishing in canoes or undecked boats, provided they are not in the employment of other persons. They may also be employed as hunters as heretofore;

9. These regulations to remain in force until abolished or modified by common agreement, and to be revised every five years.

Some objections have been made by some of our Canadian sealers to these regulations, but it is probable that after a little experience it will be found both by the United States and Canadian sealers that their interests will not be much injured, if at all, and that the seals will be better protected and preserved than formerly.

Although we have not obtained all that we desired in the way of regulations, as the question submitted under this head to the arbitrators was one full of very great difficulties, it is still possible that the United States by friendly agreement with Great Britain and other powers may improve the regulations which will still further preserve seal life and yet permit the pelagic sealers to carry on a profitable business.

Great Britain and Canada have much reason to be pleased with the settlement of the great question of right which is now complete, as on every point Great Britain's contention has been sustained, and that question has been settled for all time to come, and will add greatly to the prospects of peace between the two nations so closely connected by commerce and relationship.

By the settlement of this important question it is probable it will never be the cause of any dispute or ill-feeling between the United States on the one hand, and Great Britain and Canada on the other.

It might be advisable here to say something about Canada as a field for the angler. In this respect, it is without doubt a perfect paradise for sportsmen, barring, of course, the flies and mosquitoes. This fact is so well known that the principal salmon streams in New Brunswick and Quebec, such as the Restigouche, the Mirimichi, the Nepissiquit, the Cascapedia, the Saguenay, etc., have been leased by clubs or private gentlemen, some of them from the United States, and other places, who have built commodious and almost princely residences, in which they enjoy themselves during the fishing season, and the value of some of the salmon rivers has gone up to very high prices. A salmon river, the Cascapedia, was recently leased by the Quebec Local Government to which it belongs, for the sum of \$6,125 a year. I understand some New York gentlemen are the fortunate possessors of this valuable lease.

Besides salmon, there is also an abundant supply of bass, maskinongé and other fish for sportsmen who cannot afford to lease or own a salmon river.

Before concluding these remarks, I may say that the Fisheries Service of Canada is managed by the Department of Marine and Fisheries, over which the Minister of Marine and Fisheries for the time being presides, and such Minister is a member of the Government, with a seat in the Cabinet, and is also a member of the legislature. He has, however, many duties to perform, besides the administration of the fisheries, including all matters relating to pilots and pilotage: the construction and maintenance of all lighthouses, light-ships, and fog-alarms, and automatic buoys numbering 1,189 of all kinds, both large and small; harbour commissioners and harbour masters; the management of Government piers, wharfs and breakwaters; steamships and vessels belonging to the Government engaged in connection with services administered by the Marine and Fisheries Department; sick and distressed seamen, and the maintenance of marine hospitals; the life-boat service, and rewards for saving life; inquiries into the cause of shipwrecks; the inspection of steamboats and examination of engineers and inquiry into accidents to steamers and the conduct of engineers; the examination of masters and mates; registration and measurement of shipping; meteorological and magnetic services; tidal observations on the coasts of Canada; inspection of vessels carrying live stock from Canada to Europe; shipping of seamen, shipping masters, and shipping offices; winter communication between Prince Edward Island and the mainland by steamer and ice boats; hydrographic

Fisheries Report.

surveys; removal of wrecks and other obstructions in navigable waters, and generally, all such matters as refer to the Marine and Fisheries interests of Canada. The department employs altogether 2,236 officers and employees.

It will be seen by this that the minister has much to engage his attention besides the administration of the Fisheries service.

I am much pleased to have had an opportunity of submitting to you this brief account of the Fisheries of Canada, and the manner in which the Government service in connection with it is administered.

An examination of the different kinds of fish taken from our waters and now on exhibition in the Fisheries building in this great World's Fair, will explain to some extent the reason why every Canadian citizen feels proud of this important branch of our commerce, and I hope it will be found that the specimens and exhibits of fish we have sent here will be very creditable to the Dominion of Canada, and compare favourably with those of older and more wealthy countries.

I may say that in the great Fisheries Exhibition of London, in 1883, the Department of Marine and Fisheries, and individuals of Canada, carried off 32 gold medals, 40 silver medals and 23 bronze medals, while in the Fisheries Exhibition in the World's Fair, in 1893, I understand the Marine and Fisheries Exhibit will obtain the highest awards, consisting of diplomas and gold medals, besides about a score of diplomas and medals to individual exhibitors.

Diplomas will be awarded for the general Canadian Fisheries Exhibit, consisting of stuffed fish, fish in alcohol, collection of fish eating birds and aquatic animals, models of boats and fish traps, commercial fish and fish oils. I am much pleased to hear also that an official of the Marine and Fisheries Department, Mr. Robert Hockin, of Pictou, N. S., who has given much attention to an improved fish-way, will obtain the highest award for his patent fish-way.

Canadian boat builders are still to the front, and builders of fishing boats, who received awards in 1883 and 1886 in London, will receive similar high awards at this exhibition.

I believe that it is well known that Canada has exhibited here and at other exhibitions, her food and commercial fishes in the packages in which they are found in the ordinary course of trade, while some other countries have exhibited their fish in fine polished wood packages, never found in the market.

Canada naturally feels gratified with the high position which her exhibits of commercial fishes have taken, both here and at the London Exhibition, and has much reason to feel satisfied with the fair and honourable treatment she has always received at the hands of the judges at the different exhibitions where her commercial and other fish have been placed in competition with those of other countries.

The following is a copy of the awards given by the Judges with reference to the Fishery Exhibits of Canada, in the Fisheries Building, at the World's Fair, Chicago, viz. :—

WORLD'S COLUMBIAN COMMISSION, AWARDS DEPARTMENT,

REPORT No. 60, CANADA, DEPARTMENT "D," FISHERIES,

August 21st, 1893.

To the President and Members of the Executive Committee on Awards, World's Columbian Exposition :—

GENTLEMEN,—We beg to advise you that the individual judges, Messrs. N. Borodine, N. O. Cram and W. L. May, assigned to the exhibits of Canada in Groups 37, 38 and 40 in classes 247, 249, 250, 257, 258, 262, 271, 272 and 273 have examined the exhibits Nos. 3,401 to 3,418 both inclusive in Group No. 37; 3,419, 3,421 to 3,423, 3,426 to 3,430 and 3,433 in Group 38; and 3,452 to 3,455, 3,463 and 3,472 in Group 40, and report to this Committee that they deem the collection well worthy of an award for the following reasons :—

1. Canada has made one of the largest displays in the fisheries building. Its collection, which illustrates the fish and aquatic bird fauna of the country, the way the fishing industry is carried on in the different parts of the Dominion, the mode of handling, preserving, curing and packing the products of its fisheries, is one of the most important and interesting features of the exposition.

2. Its collection of stuffed fish is declared to be the most complete. It is the best in specimens and the richest in variety shown by any exhibitors in the fisheries building. It is particularly rich in regard to the salmonidæ, which is of great value from a scientific point of view. The fish are perfectly mounted, and this collection is entitled to the highest award.

3. The fish in alcohol are in a very good state of preservation, and its collection of fish eating birds is an excellent one as to richness and skilful mounting, and cannot be too highly commended.

4. The exhibit in Group 38, composed mainly of models of boats and trap nets, recommends itself by the neatness of the models, illustrating the mode of fishing, and the progress made during recent years. Their tasteful arrangement contributes greatly to the interest of the exposition.

5. The collection of fish oils is varied and showè articles of excellent quality.

6. We desire to mention specially a large map of Canada, showing the yield and value of the fisheries and the location of the fishing grounds of the country. It also shows as accurately as possible the migrations of the fish having a commercial value, and the progress recently made in Canadian fisheries. This map is of great importance and of special value and interest, and we recommend it to the attention of all those interested in fishery matters.

The assignment cards of the exhibits named above with the reports of the individual judges are inclosed herewith.

Yours,

L. Z. JONCAS,
President.

Fisheries Report.

FISHING BOUNTIES, 1892.

The payments made for this service are under the authority of an Act passed in 1891, 54-55 Vic., Cap. 42 (being a repeal of chapter 96, Revised Statutes), intituled "An Act to encourage the development of the sea fisheries and the building of fishing vessels," which provides for the payment of a sum of \$160,000 annually, under regulations to be made from time to time by the Governor General in Council.

The total number of bounty claims received for the year 1892, was 14,829, against 19,663 in 1891, being a decrease of 4,834 for the year.

The number of claims paid during the year 1892, was 14,442, as against 18,506 in 1891.

The total amount of bounties paid in 1892, on the basis of \$3 per ton to vessels, and \$3 per man to boat fishermen, and \$1 per boat to the owners thereof, was \$159,752.14.

The number of vessels which received bounty in 1892, was 668, with a tonnage of 25,748 tons, showing a decrease of 37 vessels and a tonnage of 785 tons as compared with the previous year.

The number of boats on which bounty was paid was 13,774, and the number of boat fishermen who received bounty was 23,812, being a decrease of 3,927 boats and 9,695 fishermen, as compared with the year 1891.

The total number of fishermen in vessels and boats to whom bounty was paid during the year 1892, was 29,064 as against 38,859 in 1891.

For details of payments to vessels and boats, and for comparative statements in connection with payments since 1882, see Appendix No. 2.

As will be seen by the above figures, there was a large decrease in the number of claims filed in 1892 as compared with the year 1891. This decrease occurs chiefly in applications for boat bounty, and is due to the stringent regulations adopted relative to the collection of claims, as referred to in the report for 1891. Under the new arrangement for filing claims, fishermen were obliged to prove their applications before the officer of the district, who visited each locality on a day appointed by public notice.

This system appears to have given general satisfaction, the fishermen having expressed themselves as pleased with the change, and it has been the means of shutting out a large number of claimants, who had been in the habit of illegally drawing the bounty in past years through claims made before local magistrates.

The effect of this new regulation has been to give greater encouragement to the owners of fishing vessels, as the department was enabled to increase the rate of payment to vessels in 1892 from \$1.50 per ton to \$3.00. The result has been that a large number of new vessels have been added to the fishing fleet during the present year (1893), in anticipation of receiving the increased bounty.

The following particulars in connection with bounty payments, show :

1. Year when bounty was established, 1882.
2. Number of claims paid per year, as follows:—

In 1882.....	11,972,	representing	29,932	fishermen.
1883.....	13,086	do	33,399	do
1884.....	12,468	do	31,279	do
1885.....	14,124	do	33,564	do
1886.....	14,900	do	33,523	do
1887.....	15,416	do	34,387	do
1888.....	15,599	do	34,887	do
1889.....	17,078	do	38,343	do
1890.....	17,959	do	39,050	do
1891.....	18,506	do	38,859	do
1892.....	14,442	do	29,064	do
Total.....	165,550	do	376,305	do

3. Amount of bounty paid per year as follows:—

In 1882.....	\$172,285 47	In 1887.....	\$163,757 92
1883.....	130,344 85	1888.....	150,185 53
1884.....	155,718 98	1889.....	158,526 54
1885.....	161,539 39	1890.....	158,241 01
1886.....	160,903 59	1891.....	156,891 85
		1892.....	159,752 15

Total amount of bounty paid.....\$1,728,147 27

4. The proportion of bounty paid per head, or the basis of payments for each year:

In 1882, vessels were paid at the rate of \$2 per ton, one-half being payable to the owner and the other half to the crew.

Boats were paid on the basis of \$5 per man, one-fifth of which went to the owner and four-fifths to the men.

In 1883, the rate to vessels was \$2 per ton, and paid as in 1882. The basis of payment to boats was \$2.50 per man, one-fifth of which was paid to the owner and four-fifths to the men.

In 1884, vessels were \$2 per ton, as in 1882 and 1883; and owners of boats were paid as follows:—

On boats from 14 feet keel to 18 feet keel.	\$1 00
do 18 do 25 do	1 50
do 25 do upwards	2 00

And boat fishermen \$3 each.

In 1885, vessels were paid \$2 per ton as in previous years. The rate to boats was the same as in 1884, with the admission of boats measuring 13 feet keel. Boat fishermen \$3 each.

In 1886 and 1887 the rate to vessels and boats remained the same as in 1885.

In 1888 vessels were paid at the rate of \$1.50 per ton, one-half to owner and one-half to crew, as formerly. Boats remained the same as in 1885-86-87, and boat fishermen \$3 each.

In 1889 the rate to vessels remained the same as in 1888. Owners of boats were paid \$1 per boat, and boat fishermen \$3 per man. These rates also formed the basis of payments for the years 1890 and 1891.

In 1892 vessels were paid at the rate of \$3.00 ton, divided between the owners and the crew, in accordance with the regulations. Owners of boats were paid \$1 per boat and boat fishermen \$3.00 each.

The total number of vessels to which bounty was paid since 1882, is 8,807 with a tonnage of 335,746 tons, the number of crew receiving bounty being 69,983. Average number of men per vessel is 8.

The total number of boats paid is 156,718, and boat fishermen 306,322. Average number of men per boat, 2.

5. The highest bounty paid per head to vessel fishermen was \$21 in 1892; the lowest 83 cents.

The highest bounty paid per head to boat fishermen was \$4, the lowest being \$2. The general average paid per head is, \$4.86.

FISHING BOUNTY REGULATIONS.

The regulations governing the payment of Fishing Bounties approved by Order in Council, dated 20th August, 1892, were amended on 25th September, 1893, by the addition of the following clause:—

2. No bounty shall be paid upon fish caught with gill-nets, set at a distance of less than two miles from shore, or with trap-nets, pound-nets and weirs.

Fisheries Report.

It was found that this regulation placed restrictions upon *bona fide* fishermen, and that it did not meet the purpose for which it was intended, consequently the regulations then in force were rescinded and the following substituted therefor, by Order in Council, dated 2nd November, 1893:—

1. Fishermen who have been engaged in deep-sea fishing for fish other than shell-fish, salmon and shad, or fish taken in rivers or mouths of rivers, for at least three months, and have caught not less than 2,500 pounds of sea fish, shall be entitled to a bounty; provided always that no bounty shall be paid to men fishing in boats measuring less than 13 feet keel, and not more than three men (the owner included) will be allowed as claimants in boats under 20 feet.

2. No bounty shall be paid upon fish caught in trap-nets, pound-nets and weirs, nor upon the fish caught in gill-nets fished by persons who are pursuing other occupations than fishing, and who devote merely an hour or two daily to fishing these nets and are not, as fishermen, steadily engaged in fishing.

3. Only one claim will be allowed in each season, even though the claimant may have fished in two vessels, or in a vessel and a boat or in two boats.

4. The owners of boats measuring not less than thirteen feet keel which have been engaged during a period of not less than three months in deep-sea fishing for fish other than shell-fish, salmon or shad, or fish taken in rivers or mouths of rivers, shall be entitled to a bounty on each such boat.

5. Canadian registered vessels of 10 tons and upwards (up to 80 tons), which have been exclusively engaged during a period of not less than three months in the catch of sea-fish other than shell-fish, salmon or shad, or fish taken in rivers or mouths of rivers, shall be entitled to a bounty, to be calculated on the registered tonnage; one-half of which bounty shall be payable to the owner or owners, and the other half to the crew, except in cases where one or more of the crew shall have failed to comply with the regulations, then such share or shares shall not be paid.

6. Owners or masters of vessels intending to fish and claim bounty on their vessels must, before proceeding on a fishing voyage, procure a license from the nearest collector of customs or fishery overseer; said license to be attached to the claim when sent in for payment.

7. Dates and localities of fishing must be stated in the claim, as well as the quantity and kinds of sea-fish caught.

9. Ages of men must be given. Boys under 14 years of age are not eligible as claimants.

9. Claims must be sworn to as true and correct in all their particulars.

10. Claims must be filed on or before the 30th September in each year.

11. Officers authorized to receive claims will supply the requisite blanks free of charge, and after certifying the same will transmit them to the Department of Marine and Fisheries.

12. No claim in which an error has been made by the claimant or claimants shall be amended, after it has been signed and sworn to as correct.

13. Any person or persons detected making returns that are false or fraudulent in any particular will be debarred from any further participation in the bounty, and be prosecuted according to the utmost rigour of the law.

14. The amount of the bounty to be paid to fishermen and owners of boats and vessels will be fixed from time to time by the Governor in Council.

Trap-net, pound-net and weir fisheries, referred to in clause 2, have always been excluded from the bounty catch, although not specially mentioned in the regulations. They are allowed only under special license and therefore fall within the category of fisheries not included in the bounty.

The regulation respecting gill-nets was made in order to exclude a class of claims of persons who are not in reality fishermen and should not participate in the bounty. The men excluded under this regulation are those who earn their living on land, and do not follow the fishing business as fishermen do. They simply set their nets near the shore, to which their attention is not required for more than an hour or two each day. While these nets are set the owners are engaged in their usual daily avocations and depend on the nets to do the fishing. To this class of people, it is

held that the bounty should never be paid, it being unfair to legitimate fishermen who are engaged in this perilous business and reduces the share of the bounty, to which they are justly entitled.

In reporting on this kind of fishing in the Bay of Chaleurs, Dr. William Wakeham, Fishery Officer for the Gulf Division, in the province of Quebec, says :—The claimants are mostly farmers and are not in reality fishermen. They fish by setting out gill-nets for herring. These nets are set inshore, mostly in coves and bays to stakes or moorings and are only visited in the mornings and evenings. The bulk of this herring fishery is made in the spring and lasts about a month, ninety per cent of this herring, which during the first weeks of the fishery is all unspawned, is used for manure, it being claimed that, by being put to this use it finds its best market. After the close of the spring herring fishery there is a slack time, during which the nets are not fished. About the end of July they are, however, put out again, and are fished for mackerel and fall herring off and on, until the close of the season. During this last part of the season, very few fish are taken and very little time is spent daily over the fishing. Dr. Wakeham further adds, that it could not have been the intention of the framers of the Bounty Act to allow a bounty to be paid to such fishermen or for such a method of fishing as that above described, and although it is not barred for bounty, there is no doubt it should be.

This regulation will not in any way interfere with *bona fide* fishermen, but will be the means of securing for them a larger share of the appropriation granted annually as bounty to fishermen.

FISHING BOUNTY OFFICERS AND DISTRICTS.

Having also in view the object of further improving the system of collecting claims, several new districts have been made.

Following is the list of officers and districts for 1893 :—

NOVA SCOTIA.

Name of Officer.	Extent of District.
A. C. Bertram, Inspector of Fisheries, North Sydney.....	The county of Cape Breton.
D. F. McLean, Fishery Overseer, Port Hood.....	That portion of the county of Inverness lying south of and including Broad Cove Chapel.
James Coady, Fishery Overseer, Margaree Forks.....	That portion of Inverness County lying north of, but not including, Broad Cove Chapel.
Alfred E. LeNoir, Fishery Overseer, Arichat.....	Madame and other islands in the county of Richmond lying south of Lennox Passage and St. Peter's Bay.
Duncan Cameron, Fishery Overseer, St. Peter's.....	That portion of Richmond County lying west of St. Peter's Canal and north of Lennox Passage.
John Murchison, Fishery Overseer, Grand River.....	That portion of the county of Richmond lying east of St. Peter's Canal.
Charles L. Campbell, Fishery Overseer, New Campbellton.....	The county of Victoria.
R. Hockin, Inspector of Fisheries, Pictou.....	The counties of Pictou and Antigonish and the northern coast of Colchester County.
William Cameron, Fishery Overseer, Guysboro'.....	That portion of Guysboro' County extending from Antigonish county line to, but not including, White Point.

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LIST of Officers and Districts for 1893—*Continued.*

NOVA SCOTIA—Concluded.

Name of Officer.	Extent of District.
Allan McQuarrie, Fishery Overseer, Sherbrooke.	That portion of Guysboro' County extending from, and including, White Point to Halifax County line.
Robert Gaston, Fishery Overseer, Pope's Harbour.	That portion of Halifax County extending from Guysboro' County line to, and including, Pope's Harbour.
George Rowlings, Fishery Overseer, Musquodoboit Harbour.	That portion of Halifax County extending from Pope's Harbour to Dartmouth.
Alfred Ogden, Fishery Officer, Pictou.	That portion of Halifax County extending from Bedford Basin to Nine Mile River.
John H. Bartlett, Fishery Overseer, Terence Bay.	That portion of Halifax County extending from Nine Mile River to Lunenburg County line.
David Evans, Fishery Overseer, Chester.	The eastern section of Lunenburg County, from Halifax County line to and including Mahone Bay.
Wm. M. Solomon, Fishery Overseer, West La Have Ferry.	That part of the coast of Lunenburg County, west of, but not including, Mahone Bay, to Queen's County line.
J. N. Freeman, Fishery Overseer, Liverpool.	The county of Queen's.
W. J. McGill, Fishery Overseer, Shelburne.	The eastern section of Shelburne County, extending from Queen's County line to Clyde River.
E. S. Goudey, Fishery Overseer, Barrington.	The western section of Shelburne County extending from Clyde River to Yarmouth County line.
J. A. Hatfield, Fishery Overseer, Tusket.	The county of Yarmouth.
J. R. Kinney, Inspector of Fisheries, Yarmouth.	The counties of Digby and Annapolis.
James S. Miller, Fishery Overseer, Canning.	The county of King's.

NEW BRUNSWICK.

Capt. J. H. Pratt, Inspector of Fisheries, St. Andrew's.	The county of Charlotte.
Jos. O'Brien, Fishery Overseer, Carleton.	The county of St. John.
W. F. Hannah, Fishery Overseer, Richibucto.	The county of Kent.
J. G. Williston, Fishery Overseer, Bay du Vin.	That part of the coast of Northumberland County extending from Kent County line to Point aux Carr.
Lemuel Abbott, Fishery Overseer, Chatham.	From Point aux Carr on the south side of Miramichi River to Oak Point on the north side in the county of Northumberland.
Prudent Robichaux, Fishery Overseer, Upper Neguac.	From Oak Point to Gloucester County line, in the county of Northumberland.
R. A. Chapman, Inspector of Fisheries, Moncton.	The counties of Westmoreland and Gloucester; and from Belledune to Dalhousie in the county of Restigouche.

List of Officers and Districts for 1893—*Continued.*

PRINCE EDWARD ISLAND.

Name of Officer.	Extent of District.
Edward Hackett, Fishery Officer, Charlottetown.	The county of Prince.
A. Lord, Charlottetown.....	The county of Queen's.
Michael McCormack, Fishery Overseer, Souris...	The county of King's.

QUEBEC.

County of Bonaventure.

W. C. Ross, Fishery Overseer, Hopetown.....	That part of the coast of Bonaventure County extending from Point Marquereau to, but not including Paspebiac.
J. L. Smith, Fishery Overseer, New Carlisle.....	That part of the coast of Bonaventure County extending from and including Paspebiac to Grand Caspédia River.
Peter Cyr, Fishery Overseer, Robitaille.....	That part of the coast of Bonaventure County extending from Grand Caspédia River to Maguasha.

County of Gaspé.

Henry Jones, Fishery Overseer, Little River, West.....	That part of the coast of county of Gaspé extending from Point Maquereau to and including corner of the Beach.
G. T. Annett, Fishery Overseer, Peninsula.....	That part of the coast of Gaspé extending from, but not including, corner of the Beach to and including Cape Rosier.
Pierre Theriault, Fishery Overseer, Griffin Cove..	From, but not including, Cape Rosier to Fame Point.
Jos. Lemieux, Fishery Overseer, Mont Louis.....	From Fame Point to Duchesnay Township line.
J. I. Letourneau, Fishery Overseer, Ste. Anne des Monts.....	From Mont Louis Township line to Rimouski County line.
J. A. Chevrier, Fishery Overseer, Amherst, M.I.	Amherst and Entry Islands.
P. L. Joncas, Fishery Overseer, House Harbour, M.I.....	All Magdalen Islands except Amherst and Entry.

County of Rimouski.

Johnny Joncas, Fishery Overseer, Matane.....	That part of the coast of Rimouski County extending from River Blanche to Gaspé County line.
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Fisheries Report.

LIST of Officers and Districts for 1893—*Concluded.*

QUEBEC—*Concluded.*

County of Saguenay.

Name of Officer.	Extent of District.
N. A. Comeau, Fishery Overseer, Godbout	From Manicouagan to Baie des Rochers.
T. Migneault, Fishery Overseer, Moisie	From Baie des Rochers to Point St. Charles.
Geo. Du Berger, Fishery Overseer, Mingan	From Point St. Charles to, and including, Esquimaux Point.
Geo. Gaudin, Fishery Overseer, Natashquan	From, but not including, Esquimaux Point to Natashquan River.
Capt. S. Belanger, "La Canadienne" steamer, Gaspé Basin	From Natashquan River to Cape Whittle, and Anticosti Island.
John LeGouvié, Fishery Overseer, La Tabatière	From Cape Whittle to Checatia.
W. H. Whitely, Fishery Overseer, Bonne Espérance	From Checatia to Blanc Sablon.

THE OYSTER FISHERY.

The history of the oyster fishery in the Dominion has already been fully dealt with in previous reports of this department. Mention is therein made of the individual efforts made by a few persons towards the introduction of oyster culture in this country by private enterprise, which efforts, the department has reason to believe, were reasonably successful. It, however, soon became evident, that this individual action was not sufficient, to save the fishery from total extinction, and that some radical measures were necessary to prevent the complete depletion of our rich oyster beds, some of which, such as the Shediac, Cocagne, Buctouche, Caraquet, &c., have been so much injured in the past by over-fishing and reckless modes of fishing.

In 1887, a commission was appointed to inquire into the condition of the oyster fishery in Canada. Several suggestions and recommendations were made, but these were not acted upon. In 1890, the Minister of Marine and Fisheries, in a report to the Privy Council, expressed his approval of the following recommendations of the Commissioners:—

1. Defining the limits of oyster beds, and adopting a system of licenses in connection therewith.
2. Prohibiting dredging for mussel mud in the immediate vicinity of oyster beds.
3. Fishing certain areas only during alternate years.
4. Retaining the present close season, viz., from 1st June to 15th September.
5. Prohibiting the catching of *round* oysters under 2 inches diameter of shell, or *long* oysters under 3 inches of outer shell.
6. Prohibiting fishing in localities where the supply was nearly exhausted.
7. Appropriating a certain sum for the formation of new oyster beds and the re-stocking of exhausted fisheries.

And the Minister further recommended the adoption of the following regulations:—

1. No one shall fish for or catch any oysters in the Dominion of Canada, except under the authority of the Minister of Marine and Fisheries.

2. No one shall fish for, or possess, any oysters between the 1st day of June, and the 15th day of September in each year, both days inclusive.

3. No one shall fish for, catch or possess any oysters less than 2 inches broad, or less than 3 inches in length. All oysters taken under these dimensions to be immediately returned to the water, under penalty of fine and forfeiture of all material, implements or appliances used, and the cancellation of the license.

4. Mud-digging is prohibited within 200 yards of any live oyster bed, and then only at such place or places, as may be prescribed by a fishery officer.

It was further recommended that the first regulation should not come into force until 15th September, 1890, as the fishing season had already began.

The Privy Council approved of the above regulations, except in the case of mussel mud-digging, where it was recommended to make the distance 200 feet instead of 200 yards, as suggested. The Council further directed that the regulations should not take effect until a survey was made.

In order to facilitate applications, instructions were issued to guide surveyors in the preparation of plans and descriptions for applications for oyster fishing licenses.

Finding from inquiry, that considerable satisfaction was expressed among the residents of localities where exhausted beds were to be found, at this action of the department, a form of petition was circulated, asking that certain beds be set apart for the purpose of re-stocking, and that fishing be prohibited therein for a certain number of years.

In response to this appeal, petitions were received from a great many places in New Brunswick, Prince Edward Island and Nova Scotia.

An appropriation of \$5,000 having been voted by Parliament, for the survey of oyster beds, and for the purpose of assisting in the planting and formation of new ones, instructions were given for the survey of Shediac Harbour, and an Order in Council was subsequently adopted setting apart about 270 acres of water area in the above named locality, for the purpose of carrying on natural and artificial reproduction of oysters. It was expected that these operations could have been inaugurated in the fall of 1891; but so much difficulty was experienced in securing the services of a reliable expert, that the experiments had to be postponed until the spring of 1892.

Inquiries were made through the High Commissioner for Canada, in London, and Mr. Fabre, in Paris, for the purpose of securing the services of an expert to take charge of the operations. This led to the engagement of Messrs. Frederick and Ernest Kemp, who had had considerable experience in connection with the Whitstable Oyster Company, the largest and most important and influential corporation of the kind in Great Britain. The Messrs. Kemp arrived in Canada on the 5th June, 1892, and immediately began the examination of the Shediac oyster-beds. A careful inspection of the whole of Shediac Bay convinced them that it would be a suitable place for natural oyster culture, although the beds were found to be in a most deplorable condition through want of care and attention and the ruthless manner in which the mussel-mud diggers had cut them all to pieces, leaving a lot of disjointed patches with an immense accumulation of soft mud around the beds. The northern portion of the bay was not found to be as favourable for oyster culture as the southern part. The limits previously set apart by Order in Council were accordingly changed, the northern portion thereof being left out.

The Messrs. Kemp also examined the oyster-beds at Buctouche, Cocagne and Richibucto, which they found to be in about the same conditions as those at Shediac.

A fact worthy of remark is that throughout the whole of their inspection, the experts did not find a single marine enemy to the oyster. The cause of the depletion of these beds was ascribed to reckless modes of fishing; fishing during the close season, and fishing through the ice, by which large numbers of small and unmarketable oysters are left to perish on the ice and the beds destroyed by the mud which falls on the oyster beds when the ice thaws in the spring.

Fisheries Report.

During that year the experts also examined the oyster beds in Richmond Bay, Malpeque, Prince Edward Island, which they pronounced to be nothing short of a gold mine. Some of the beds are extensive, and the stock compares well with that of cultivated grounds. The resources of the bay appear to be enormous. Where soil could be found, there were oysters and oyster brood. In no single instance, were death or a marine enemy met with.

In North or York River, near Charlottetown, there is very little soil or oyster ground, but oysters are said to exist above the bridge. In West or Elliott River, at Long Creek, abundance of oyster brood in a healthy condition was noticed, growing very fast. In Vernon River, three hauls of the dredge brought up 30 oysters and 614 brood. Orwell Cove and the grounds in Orwell Bay were said to compare favourably with those in Vernon River. In East Hillsboro' River, the beds were found to be completely covered with oyster brood of very fine shape and form different from the oysters found on other beds in this part of Prince Edward Island.

Taking everything into consideration, the experts came to the conclusion that there was no danger of the oyster beds becoming depleted if the laws of nature are observed and the recommendations which they made carried out.

On completion of their labours in Prince Edward Island, it being found that the presence of Mr. Frederick Kemp was no longer required, he was permitted to return to England, and Mr. Ernest Kemp was engaged, for a period of three years, to continue the work. This he is doing by preparing the beds for the purpose of re-stocking them in the spring. A small steamboat was employed to dredge on one of the largest beds in Shediac Harbour. Four dredges were at work, removing all the old shells, weeds and refuse which covered these beds, being very careful to pick out all live oysters and brood brought to the surface. These were again relaid on different parts of the harbour, after being carefully separated from the shells or oysters they had adhered to, in order that the shape of the oyster may develop more fully. The cultch and shells, which had accumulated on these beds, were removed from the top and placed on the mud, on the outside edges, or in some of the holes caused by the mud-diggers. The ground was cleaned on the edges; the beds were made much larger, and the soil made ready for re-stocking with oyster brood. Owing to some delay in procuring the necessary oysters from Prince Edward Island, no planting was done during the fall of 1892. In view of the lateness of the season, the danger from frost, snow, and the change of water, Mr. Kemp deemed it more prudent to delay these operations till the following spring, which he considers the best time for planting, as the oysters will then grow much faster if placed in shallow water during the spring and summer months than if placed in deeper water, as the sun causes the water to become much warmer, the oyster being very sensitive to the action of light and heat, which promotes a rapid growth. Oysters planted in the autumn are not so likely to thrive, as owing to the change of soil and falling temperature, the oyster is not properly acclimated before winter sets in, which very often proves disastrous. Oysters grow but very little during the winter months, consequently it is all risk and loss, with no gain, although there are exceptions in every case.

Mr. Kemp sends the following report of his operations for the season of 1893:

BY ERNEST KEMP.

On the completion of the inspection of oyster grounds last year, I received instructions to locate the most suitable area for oyster culture in Shediac Harbour, which area was set apart by Order in Council on the 16th day of December, 1892, as follows:—

“All the waters of Shediac Harbour extending from a line drawn south 67° west (due west magnetic) from Mr. Petipas' house on Shediac Island, to Mr. Wilbur's tannery, on the north side of Wilbur's Cove, southwardly to a line drawn from the south extremity of Snake Point; 50° 7' 30" west (west by south $\frac{1}{2}$ south magnetic), to the corner of Moncton Road; the points where the boundary lines above described cut the high water on shore being marked in each case by a square cedar post, inscribed O. R. (oyster reserve), and the whole including below low water mark an area of 980 acres, be the same more or less.”

This area can, however, be extended further north to the entrance of Shediac River, if required, as oyster beds are lying in that locality, a plan of this area having been submitted to the department on the 5th December, 1891, made by Robert Simpson, surveyor, of Pictou, N.S.

Within the first named area, the work of preparing and cleaning the oyster beds commenced last fall, until the ice stopped operations, and was resumed in the spring and carried on without intermission up to the present day.

These beds require a great amount of cleaning before planting, as it must be understood no attention has ever been paid to them for the purpose of protection or prevention of deterioration and extinction; they have gradually been growing towards the surface of the water from time immemorial. Originally this harbour must have been very deep, as the mussel-mud diggers, cutting through an oyster bed to a depth of twenty or twenty-five feet, find that it consists of dead and decomposed shells which have accumulated for ages. As these beds have grown up the silt or soft mud has filled in, and become overgrown with long weeds or eel grass. These weeds will grow wherever they can find a hold at the bottom, their length being from six to nine feet, in many cases beds are entirely overgrown, and in this way some of the beds have become completely choked or smothered. The weed dies off to a certain extent during the winter and adds another layer to the soil below; all this has to be cleaned off, and the old dead shells, removed from the surface of the beds, before it is advisable to plant oyster brood. These beds are marked by beacons placed on the outside edges, so that the exact position may be observed at a glance.

This work has been carried on by means of a small steamboat (hired for the purpose) towing dredges over the grounds. About a bushel is collected at a haul of shells, stones, oysters, brood, weed and mud, in fact anything that is lying in its way; this is all culled over, the oysters and brood are then separated from the contents of the dredge, which is commonly termed "cultch." The oysters are placed on another bed, and this "cultch" is used in filling up the holes caused by the mussel-mud digger, or is placed on the margins of the beds. The dredge used for this purpose is nearly three feet wide. It is a rake or bit formed of iron about two inches wide with a net attached behind it, and as it disturbs or turns over the soil, the latter is caught in the net; the sides of the bit are joined by two pieces of iron about three feet six inches long, with a ring at the end to which is attached a rope, and in this way it is towed and brought when required to the surface. It is also strengthened by a piece of iron running from the ring two-thirds the length of the sides, and connected by a cross-piece of iron holding the two outside limbs in their place; to it also is secured the upper side of the net. I have used in addition, two rakes for removing the weed. These consist of an iron bit or rake, six feet long, and three inches wide, attached to two other pieces of iron in the shape of a triangle. This mowing dredge towed over the beds at first, takes the heaviest of the weed off. By these means the beds are cleaned.

After the ice set in, I left for Ottawa, and reported myself for duty. I stayed until the middle of March, having previously made inquiries as to the condition of the ice in Shediac Bay. I was informed by Inspector Chapman and others, that the ice was rotting; I wished to make an examination of the ice upon the oyster beds to see what effect it had upon them. On my arrival in Shediac I commenced an examination of the ice on the different parts of the bay. It varied in thickness from two feet to thirty inches, although I was informed that in some years three feet of ice will be found. This is caused by snow falling on the ice and freezing solid, one layer after another resting upon the ice. The average thickness on the beds being 24 to 26 inches, oysters and clams were taken from the bed with 3 feet 6 inches of water between the ice and the bottom, and were not hurt by the frost. In no instance did I find the ice resting on the beds, as it does not pile where the beds are situated. My opinion is that oysters will not come to any harm if planted in a depth of 4 feet of water.

Operations were again commenced on the 29th of April. I was occupied in cleaning and preparing the beds, the first one being finished in the latter part of

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May, and on the 26th of the same month planting of oyster brood commenced, obtained from Buctouche and Cocagne. The oysters planted were chiefly small ones, averaging about 1,700 to a barrel; some of these oysters were in clusters and bunches, or had adhered to shells or stones, &c., and were separated where it was possible to do so without breaking or killing them. This separation gives the oyster a better chance to grow into its natural shape, as oysters grow much better singly than when in clusters or bunches. The total number planted during the spring was 227 barrels.

By planting small oysters on a bed, their growth will result in large proportionate returns and profit. A young oyster is not so likely to die, when transplanted to another bed, as when older, nor, is it any advantage to transplant a full grown oyster, unless for immediate use. In the oyster trade one great advantage is the rapid growth of the bivalve, when as is the case, they are bought and sold by measure.

Up to the 29th June, 269 barrels of clean shells were scattered over the grounds for the purpose of catching the spat where the oysters have been planted and 184 bundles of twigs or brushwood have been collected and attached to stones and placed on the oyster grounds for the same purpose.

After the completion of the above, another bed was cleaned, situated off Mr. Hannington's shore, and marked No. 2 on the plan. This bed required a large amount of labour to remove the shells, weed, mud, &c., from the surface, which were deposited in a cleft running through the centre of the bed. This bed extends in a straight line 300 and 400 yards and is about 100 yards wide, having rather more water on it than the first one, and is now in good condition. The oysters and brood which were taken from this bed were replanted on the outside bed.

After the necessary cleaning, 6 carloads of clinkers or railway engine cinders were laid on a soft place which divided this bed into two parts. This has given it a firm bottom, after which a layer of shell was deposited over the cinders, giving the bed an even shape. It was completed at the end of October, but too late in the season to lay small oysters down with any chance of profitable results.

After completing bed No. 2, I commenced cleaning another area of ground there rather irregular in shape, but when cleaned likely to make a very good bed for planting oysters upon. It will not be completed before the ice forms, as it was very thickly covered with long grass when first discovered, and the ice has already made its appearance along the shores of the harbour.

The area which was planted last spring has since been examined, and there are several traces of this year's spat to be seen, upon the bed. The oysters which were laid have grown and are looking very healthy, and the bed is clean and free from weed.

It is proposed that the reserved area set apart for oyster culture in Shediac Bay should be kept closed from public fishing until the 16th September, 1896; that no person or persons should be allowed to fish for oysters, clams, or any other shellfish on any of the beds in the said area, whether they are under cultivation or otherwise; by this method it will then be ascertained, whether by the closing of old and disused beds and allowing them to remain dormant for a certain length of time will improve them. At present these old beds are of little or no value to any fisherman, as there are very few oysters lying around. It will not be taking the privilege of fishing away; but will act as an experiment to find out whether these beds will replenish themselves, if left to nature and undisturbed by man.

There are several of these small patches or beds within the inclosed area, others are to be found on both sides of the boundary lines of the area, where fishermen can fish, if they feel so disposed, although at the present time there are very few oyster fishermen around Shediac, the beds having for some time past become so depleted that scarcely any one could obtain a livelihood at the work.

A fishery warden would be required to watch these grounds, to protect them from being robbed, and when opened for fishing those fishermen privileged to fish might make a report of the oysters caught to the warden, that a return may be made to ascertain what quantity of oysters are taken from the beds.

Further, these beds might be fished every alternate year. For instance, taking the bed marked No. 1 to commence with, and say half the area, for the first season,

and the year following, bed marked No. 2, with the other half of area to be opened for fishing the following season, thus giving each portion of the grounds a rest, so that the undersized and young oysters may attain their proper growth, and be fit for market.

It is very important that a size limit on oysters should be fixed; as these oysters are of an oblong shape, it would be desirable that no oysters under three inches in length should be landed or taken from any beds in the Maritime Provinces, (except for authorized purposes) that the young stock may be preserved and allowed to grow.

Having carefully measured and watched the sizes of different oysters, I am convinced that this is the smallest size which should be taken for market. The average size of this class of oyster is about 4 inches, but some are 6, 7 and 8 inches in length.

Round oysters two inches diameter of shell are very small, that being the very smallest size that should be allowed to be taken. At this size the oyster is not nearly full grown.

These beds, when opened for fishing, should either be fished with tongs as used in Prince Edward Island, or dredges like those now in use in cleaning and preparing the grounds. The rake, as used at present, ought to be entirely condemned, where the bottom is level, as it always forms banks or mounds on the bed, making the bottom uneven; the shells being continually raked away from one spot and piled in another.

The tongs gather up oysters and culch from under the boat, and after taking the oysters from the tongs the shells are allowed to fall in very much the same place from where they were taken. Where tongs are used in Prince Edward Island, most of the grounds appear to be in a flourishing condition, owing to the manner in which the soil is collected from the bottom. The young oysters are not hurt and at the same time the shells removed are cleaned, and the under-soil not disturbed as by the use of the rake, which is so often apt to smother and bury the young oysters. The dredge is towed over the beds and collects a larger quantity from the bottom than either the rake or tongs, the oysters are then culled out, and the refuse, consisting of shells, brood, &c., returned to the beds, while the boat is in motion, thus cleaning the grounds. The dredge disturbs the weeds and shells, keeping the beds clear of silt; and often extending them, as shells and refuse are sometimes dragged and thrown over, on the outside edge of the beds.

No mud-diggers should be allowed to work at any time on the reserved area.

Persons who are allowed to fish on these grounds should hold a license to do so, with the number of his license painted on the bow of his boat, to be renewed each year, or cancelled at any time at the discretion of the Minister.

The oyster grounds in this Dominion need more protection, in order to make as great a success as possible. We look at the present state of things, and we find that oysters in Canadian waters are not increasing, but rather diminishing, the demand being greater than the supply; it is therefore necessary to have regulations made, and carried out, to preserve and protect them.

I therefore suggest that the following rules and regulations, if approved of, be carried out in the Maritime Provinces, it being a matter of very great importance to protect this valuable industry with little delay:—

1. Oysters shall not be fished for, caught, killed, bought, sold, or had in possession, between the 1st day of June, and the 15th day of September in each year, both days inclusive.
2. All winter fishing through the ice for oysters or any other shellfish, is prohibited.
3. Oysters shall not be fished for, or caught on Sunday or during the night time.
4. No person or persons shall at any time, catch, bring on shore, or be in possession of any round oyster that does not measure fully two inches in diameter of shell, or any long oyster that does not measure fully three inches of shell.

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5. No person or persons shall be allowed to dig mussel mud within 200 yards of any live oyster-bed, and then only, at such place or places as may be prescribed by a fishery officer.

6. Persons fishing for oysters must first obtain a license, which would include the registration and number of their boats, the latter painted in white oil colour letters, on a black ground, with the initial letter of the port to which they belong, on the boat's bows, the letters to be at least 8 inches in length. The fee for such license is \$1.00 per annum.

7. No rake shall be used on any oyster grounds that has been prepared by the department, only tongs or dredges to be used on such beds. Patterns of the dredge can be obtained by application to the department, when a dredge will be forwarded to the fishery officer of the district, from which patterns may be taken.

8. Taking oysters from licensed beds is made larceny.

In support of the above suggested rules, I attach the following reasons:—

1. The above dates for the close season are fixed during the period in which oysters are spawning and growing, and while in this state are really unfit for food; also the edges of the oyster shells during the summer months are very thin and brittle, owing to their growth, which is fast, during the warm weather; no oysters ought to be disturbed on the beds or caught between the above dates.

2. Winter fishing for oysters through the ice is very injurious to the beds in every way. Fishermen tear up the ground by the long toothed rakes, collect large quantities of shells and refuse upon the ice, which is taken away from the natural bed or falling through the ice in a heap upon other beds, causes these beds to become very uneven. All the small oysters and brood are left behind to perish by the frost, and the future supply of oysters is seriously endangered. I would suggest that there be added to this clause the words "or any other shellfish," because persons may attempt to catch clams through the ice. To do so they often fish on an oyster bed, and do the same amount of damage to these beds and the young brood as if they were actually fishing for oysters. These words inserted in this clause, would not allow a loophole on the supposition that the act only referred to oysters.

3. Fishing for oysters is probably not carried out on Sunday, but in forming new regulations it may be advisable to insert the above clause. No fishing for oysters during the night time should be allowed either, as brood is very apt to be destroyed, poachers would be checked to a certain extent, and licensed beds, or reserved areas would be protected from being robbed during the night.

4. Oysters of a less size than the above, are not nearly large enough for market, nor when sent to market will they realize the same value as a carefully selected oyster. On the other hand, it is taking away the very backbone from an oyster bed, for this class of oyster must be retained on the grounds to keep up the supply. Without the small oysters, we can never expect to obtain the large ones. At the present time, thousands of these young oysters are landed, the largest merely are selected for market, and the remainder allowed to rot in heaps, instead of being returned to the water until they are of a marketable size.

5. To prohibit the mussel mud-digger from working altogether, would cause a deal of dissension, although it is very destructive to any oyster ground, and should only be permitted to work on extinct beds, which have been previously destroyed by these machines. These mud-diggers working near live oyster beds would cause a heavy sediment to drift and settle upon the beds in the vicinity, smothering the oysters and brood on the live beds, and thus doing a great amount of damage. When mud diggers have once been on a bed it is almost entirely useless for any other purpose whatever. An oyster bed is often cut to a depth of 20 or 25 feet and 10 to 15 feet wide. It can easily be seen what destructive machines they are. It is very important that they should only be allowed to work in places specified by the fishery officer of the district.

6. Under the license system for oyster fishing, persons would be less reckless in their fishing, and would, in my opinion, adhere more strictly to other rules laid down for the protection of this industry; returns would also be secured, showing

how many persons and boats were engaged in this calling. The lettering and numbering of boats would in a measure protect persons, who are holding licenses for oyster areas, from being plundered; it would also assist the fishery officer when boats are found poaching, during the close season, the number of the boat has simply to be taken in order to secure the offender. The license fee of \$1.00 per annum ought to be charged on all engaged in this industry, it being only a nominal sum, and the fishermen would get this back again, out of his first days' work. Oyster regulations, with fines for non-compliance should be printed on license forms issued.

7. The rake, as used at present, ought to be entirely prohibited. Where the bottom is level, it always forms banks and mounds, making it uneven by continually raking the shells away from one spot, and piling them in another. The tongs gather up oysters and culch from under the boat, and after taking the oysters from the tongs, the shells are allowed to fall in very much the same place from where they were taken. Where the tongs are used in Prince Edward Island, most of the grounds appear to be in a flourishing condition, owing to the manner in which they collect the soil from the bottom, not hurting the young oysters, and at the same time cleanse the shells they remove, and do not disturb the under-soil, like the rake, which is so often apt to smother the young oysters. The dredge is towed over the beds, and collects a larger quantity from the bottom than either the rake or tongs, the oysters are then culled out, and the refuse, consisting of shells, weed and brood returned to the beds, while the boat is in motion, thus cleaning the grounds. The dredge disturbs the weed and shells, keeps the beds clear of silt, and extends them, while shells and refuse are sometimes dragged and thrown over on the outside edges of the beds.

It would be advisable to have a few dredges made, if required, for persons to obtain a pattern from, for when once the dredge is introduced into the Dominion it will almost certainly supersede the rake, and open up a new and improved feature in the oyster industry. Oysters can by its means be obtained from any depth of water.

8. This rule would greatly assist to protect the holders of licensed areas, and offenders, if caught, would suffer just penalties.

Should the above draft of regulations appear to be too stringent, it is entirely for the benefit of the fisherman himself, and the beneficial effect would soon be seen. Complaints about the depletion of beds or the scarcity of oysters prevail everywhere.

I also submit for your approval, proposed regulations for the Oyster Fishery of British Columbia:—

1. Oysters shall not be fished for, caught, killed, bought, sold, or had in possession, between the first day of June and the 15th day of September in each year, both days inclusive.

2. Only full sized oysters are to be taken from the beds.

3. Oysters which dry at ebb tide shall only be picked by hand. No rake or other instrument to be used to obtain oysters from such beds.

4. No brood culch or shells to be brought on shore from the beds.

5. All oyster beds used for private culture must be licensed. For fishing upon public beds, a license fee of \$1.00 per annum, payable by each person, which would include registration of boat.

6. Suitable reserves to be made or allowed for the Indians free.

7. The department to hold the right of all waters in the Dominion for the purpose of licensing and protecting the same.

8. The above regulations to be binding on all persons whether in possession of licensed areas or fishing on public beds; Indians not excepted.

9. Oysters shall not be fished for, picked or caught on Sunday, or during the night time.

10. Taking oysters from licensed beds is made larceny.

In support of the above rules I attach the following reasons:—

1. As no close season has yet been observed in British Columbia, it would be advisable for this regulation to be in force throughout the whole Dominion, and that this regulation should be made with little delay is important. It would give the oysters a better chance of spawning, and increasing the supply early.

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2. These oysters being very small, the largest not measuring more than 2 inches in diameter, and the smallest say $1\frac{1}{2}$ inches in diameter, it is very difficult to define a size limit in this case. The fishermen who pick these oysters should know whether it is full grown or only half grown, and the latter should be returned to the beds.

3. If oysters are only picked by hand, it would assist regulations 2 and 4 to be kept in force, the smaller ones will then be left to grow, and the shells or cultch will remain for oyster spat to fall upon.

4. Both Indians and whites are in the habit of collecting oysters, brood, cultch and shells, while the tide is low, and at high water, then separate these oysters from other refuse (brood included), and deposit above high water mark to rot. If these were left at or near low water mark, they would act as collectors for the spat to adhere to.

5. This regulation would apply as in No. 6 for the Maritime Provinces.

6. An area reserved for the Indians is obviously desirable on many grounds.

7. The department should have control of all waters in the Dominion where oysters are found, either for the purpose of licensing, reserving areas for cultivation, or protecting them if necessary from total extinction.

8. No explanation in reference to this is required.

9. Same reason as No. 3 in the Maritime Provinces.

10. Same reason as given in No. 8 for the Maritime Provinces.

The above measures would materially protect the oyster beds in the Dominion and vastly increase their yield and value.

SCHEDULE of Oyster Fishery Licenses issued 1891 and since in the Dominion of Canada.

Name of Licensee.	Residence.	Locality.	Date of License.	Period of License.	Annual Fee.	Amount due.
		<i>Nova Scotia.</i>			% cts.	
Alex. McNab.....	Upper Malagash.....	Part of West Tatamagouche Bay.....	Nov. 1, '92.	9 years ..	22 00	\$22 due 1st Nov., 1893.
Andrew Kavanagh.....	West Tatamagouche.....	South side McNab's Bay, Tatamagouche.....	July 1, '93.	9 do ..	4 00	\$4 due 1st July, 1894.
Dr. Havelock Clay.....	Pugwash, N.S.....	Page's Creek, Pugwash River.....	May 1, '93.	9 do ..	15 00	\$15 due 1st May, 1894.
George E. Stewart.....	Malagash, N.S.....	Part of Tatamagouche Bay.....	July 1, '93.	9 do ..	2 50	\$2.50; license cancelled.
		<i>New Brunswick.</i>				
D. Hatton & Co.....	Montreal.....	Bay du Vin River, Co. Northumberland.....	Oct. 1, '91.	15 do ..	81 00	Steps taken to have license cancelled.
Williston, Hatton & Co.....	Bay du Vin.....	Eel River, Bay du Vin, Co. Northumberland.....	May 1, '93.	20 do ..	30 00	\$30 due 1st May, 1894.
James Barnes.....	Buctouche, N.B.....	Part of Buctouche Harbour, Co. Kent.....	do 1, '93.	9 do ..	6 50	\$6.50 due 1st May, 1894.
		<i>Prince Edward Island.</i>				
Joseph Hayley.....	Ruskin.....	Part of Powlna Bay, Co. Queen's.....	Dec. 1, '91.	9 do ..	2 00	\$2 due 1st Dec., 1893.
Chas. A. Hyndman.....	Charlottetown.....	North River and Ellen's Creek, Co. Queen's.....	do 1, '91.	9 do ..	40 00	\$40 due 1st Dec., 1893.
John W. McLeod.....	Orwell Cove.....	Orwell Cove.....	May 1, '93.	15 do ..	2 00	\$2 due 1st May, 1894.
D. A. Mackinnon.....	Georgetown.....	Brudenell River.....	June 1, '93.	9 do ..	2 00	\$2 due 1st June, 1894.
Patrick Duffy.....	South Fort.....	Hillsboro' River, Queen's Co.....	Sept. 1, '93.	9 do ..	2 00	\$2 due 1st Sept., 1894.
		<i>British Columbia.</i>				
John Cant.....	Oyster Harbour.....	Lots 1 and 2, Oyster Harbour.....	July 1, '92.	9 do ..	38 50	\$38.50 due 1st July, 1894.
John Belyea.....	Nanoco Bay.....	Nanoco Bay.....	Oct. 1, '93.	9 do ..	7 50	\$7.50 due 1st Oct., 1893.
Louis Lazare.....	Sooke Inlet.....	Sooke Inlet, Cooper Cove.....	do 1, '93.	9 do ..	10 00	\$10 due 9th Oct., 1893.
do.....	do.....	Further portion of Sooke Inlet, Cooper Cove.....	do 1, '93.	9 do ..	1 75	\$1.75 due 1st Oct., 1893.
do.....	do.....	Roche Cove, Sooke Inlet.....	do 1, '93.	9 do ..	3 00	\$3 due 1st Oct., 1893.

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ARTIFICIAL FISH-DRYING.

The first operations in the curing of cod in the establishments of the Maritime Provinces are performed on the splitting table. So soon as the cod are landed on the stage and counted, the men go to work. The *cut-throat*, armed with a two-edged knife, seizes the fish by the eyes, cuts its throat, and having opened it down to the navel with a single stroke of his knife, passes it to the *header*. The header detaches the liver, which he throws into a barrel placed near him, and with the same hand tears out the entrails; after which, with his left hand, he cuts off the head of the fish. The *splitter* now seizes the fish by the left side of the neck, and opens it from the neck to the tail, cutting from left to right; after which he places it against a batten nailed on the table, and with a single stroke of his knife, if he can, he removes the back bone from the navel upwards. From the hands of the splitter the cod passes into those of the salter, who places it on a pile, spreading it carefully, with the flesh up, and the napes out, and, with a wooden shovel, scatters a layer of salt over each row. The salter's art lies in sprinkling on each fish just salt enough to make it keep well, but not enough to burn it.

The cod is left piled in this way for three days, or sometimes four, according to the quality of the salt, after which, the operation of washing commences. When cod is to be washed, it is conveyed in wheel-barrows, or hand-barrows, to a large trough filled with water, which is continually being changed; in this trough it is turned over and over by men armed with poles, and rubbed on both sides with the swabs on the ends of the poles, until all the salt is washed off, when it is put in piles again in order that the moisture may drain off from it. After some days, the piles are taken down, and the fish are spread one by one on bundles, three feet wide, covered with fir or spruce boughs, and supported upon posts about three feet from the ground, in order that by exposure to the action of the sun and air, they may be deprived of all the water they contain and be reduced to that dry state in which they may be preserved for several years in hot climates. If the process of dressing cod has to be performed with care, that of drying it, must not be neglected for a single moment; for cod is merchantable, or of inferior quality, or even sometimes entirely spoiled, according as the process is well or ill managed.

The hurdles on which cod are spread to dry, are called flakes. They are placed parallel to each other, with spaces of four feet between, to enable the men in charge of the fish to move round. At night the fish are gathered into piles of fifteen or twenty each, with the flesh side down, the largest on top by way of cover to the rest. In the morning, they are spread out, with the flesh up. If the sun gets too hot about the middle of the day, they are turned with the flesh down, to prevent their being burned, but as soon as the great heat is over, the flesh is again exposed to the drying influence of the sun. For, the faster cod is dried, the whiter and more transparent it is, and the dearer it sells in foreign markets.

When the cod is sufficiently dry, large round piles of it are made, containing as much as a ton and a half of fish each, and covered with birch bark and heavy stones. By the pressure of these, it is deprived of the little moisture that remained in it, and after remaining in this state for some weeks, it is put into dry stores where it is left until the time comes for sending it to the best markets. But, before it is shipped, it is spread out on ground covered with fine gravel during the warm hours of one day, to give it its last sunning or "parting sun," and extract from it any dampness it may have contracted in the store.

In fine weather, and during a dry season, when westerly winds predominate, cod is easily cured and made of the first quality. It is difficult when easterly and south-easterly winds prevail, and bring with them mists and rain that last for whole weeks. In ordinary seasons, from 5 to 6 per cent of the dried codfish is of second quality; in rainy seasons from 15 to 20 per cent is thus deteriorated.

This then is the mode of curing cod by exposure to the sun.

It is reported that attempts were made at St. Pierre Miquelon and in France to dry cod artificially by means of large ovens in which the fish were exposed to moderate and regular heat, but it is said that these experiments did not succeed as well as expected, and had to be abandoned.

The following patents in connection with the curing and drying of fish are on record in the Department of Agriculture, Ottawa :—

1874.—WM. SHARP, Portland, Me., U.S.—A method for preparing and preserving fish by smoking, and subsequently boiling and putting them in cans.

1878.—S. W. GRIFFIN, Chelsea, Mass., U.S.—A process for curing fish, consisting in salting the fish, removing the bones and skin from the flesh, and subsequently, without granulating it and working it in brine, subjecting the said flesh to compression in a press so as to expel the water and surplus brine from it, and reduce the mass to a cake or cakes.

1878.—D. H. TERU, Quebec.—A method of drying fish by the employment of a vertical spindle frame, having a horizontal table, or tables, on which the fish are placed and rapidly rotated, to induce a current of air, whereby drying is facilitated.

1886.—W. BALDER & G. H. WEBSTER, Chicago, U.S.—An apparatus for preserving fish, &c.

1887.—J. SANGSTON & W. RODDEN, Montreal.—An apparatus for the preservation of fresh fish.

1888.—C. THOMPSON, Halifax.—Art or process of preserving both salt and smoked cooked fish.

1889.—S. MARMONT, Christiana, Norway.—Process of, and means for curing and preserving all kinds of fish, &c.

1892.—C. THOMPSON, Halifax.—Mode of drying fish.

1893.—J. S. WHITMAN, Annapolis, N.S.—Process of drying and curing fish.

THE THOMPSON METHOD OF DRYING FISH ARTIFICIALLY.

In 1890, Mr. Cathcart Thompson, of Halifax, brought to the notice of the department, a process of his invention, by which he claimed that fish could be dried by means of absorbent pads for merchantable purposes; thereby obviating the delays and dangers of the present method. This process is thus described by the inventor:—

A layer of green-salted fish is spread evenly on an absorbing pad; common gunning cloth makes a good, cheap and effective one. Another pad is laid over this succeeded by another layer of fish, followed again by a pad, and so on successively until the whole quantity of fish is spread; a pad being placed over the last layer. A platform of boards is then laid on this, and weights or other appliances are used to cause a slight, continuous and uniform pressure. The pile is allowed to remain from 24 to 48 hours, during which time the pads become saturated with moisture, which they have extracted from the fish. Re-piling then takes place; dry pads being substituted for the wet ones; the latter being dried for further use. Re-piling with the substitution of dry pads is continued till the fish have become sufficiently dry; a week or ten days being long enough to effect this object if intended for the home or West India market. If intended for more distant markets, which we have at present, a somewhat longer period would be required, with a certainty that each fish will be merchantable; *i.e.*, neither sun-burnt, shiny or broken. Re-piling need only be done when convenient; the delay of a day or two will in no wise injure the fish. By this method, fish can be used at any season of the year, if protected against frost. Thousands of quintals of fish are now lying on our shores, which must remain until next May, before they can be got ready for market, unless they are cured in this way.

The inventor further claimed that the advantages of his process were self-evident to any person acquainted with the method adopted by our fishermen, and the difficulties encountered and the losses sustained during the drying of their catch in our variable climate. The annual yield of dried cod, haddock, etc., in Canada, is over 1,000,000 quintals. According to the opinion of thoroughly competent judges in such matters, it is estimated that at least one-tenth of this yield is injured to the extent of half its value by sunburn, shine, etc., resulting from the effect of bad weather during the drying process. Valuing merchantable fish at \$3 per quintal, a low price, there is a yearly loss from this cause alone of \$150,000, and the saving in time,

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labour, etc., by the use of the new method may be estimated to be at least \$100,000 more. Besides this great saving, a better class of fish can be produced, which will enable shipments to be made to more distant markets than can be supplied at present, thereby opening up new outlets for one of our principal articles of trade.

Mr. Thompson submitted a series of questions to large fish dealers and curers, asking their opinion with regard to the advantages of his invention. The answers, he claimed, conclusively showed the importance of the discovery and fully bore out his contention that the adoption of his process would result in an annual saving of no less than \$250,000 to the fishing industry. He specially laid great stress on the advantages which it would confer on the large quantity of late autumn and winter caught fish, which had to be held over to be prepared in the spring for want of suitable weather to cure them.

Lieut. Gordon, commanding the Fisheries Protection Service, gave it as his opinion that while Mr. Thompson's system of drying fish by means of artificial pads could certainly be of great value in the curing of late bank fish during the broken weather of the fall, he doubted whether the method would have the same value in the heat of summer, unless the temperature of the drying room was artificially lowered. The simplicity and the cheapness of the system were its virtues. He was shown some fish dried by this process which were certainly in good order. However, he had not seen any dry enough for the Brazil market, nor equal to the Gaspé hard shore fish. He recommended the granting of an appropriation of \$500 for the purpose of making practical experiments.

This recommendation was carried out, and a sum of \$500 was placed in the estimates for 1891-92, for the purpose of testing this new mode of drying fish.

In November, 1891, Mr. Johnston, agent of this department at Halifax, was instructed to place himself in communication with Mr. Thompson for the purpose of having the experiments carried out.

In April, 1892, Mr. H. W. Johnston sent the following report:—

“ Authority was given to Mr. Thompson to make his experimental tests about the latter part of November, and he at once proceeded to procure the material and construct the necessary apparatus.

“ Unfortunately the work has been very much delayed from Mr. Thompson having been laid up with a severe attack of influenza early in December, followed by relapses, which rendered him almost unfit for business during that and the two following months.

“ The object was to ascertain by experiments on a sufficiently large scale, if the principle of abstracting moisture from fish by absorption could by an inexpensive process be of such practical utility to our fishermen, as to enable them to dry their fish independently of the weather to such an extent as would secure them until such time as an exposure to one day's sun would finish the drying and give them a good face.

“ It was also proposed to ascertain if artificial heat could not be effectually used in the final drying and finishing.

“ The experiments previously made by Mr. Thompson had been with small quantities at a time, and he thought it not unlikely that changes might be required in the practical working of the process when larger quantities had to be dealt with, and this has proved to be the case.

“ The first trial was made with 200 pounds green salted codfish. They were placed in layers between pads made by inserting dry spagnum moss between sheets of cotton cloth and piled alternately one above another, pressure being applied upon the top of the pile. The moisture extracted was not nearly as great as was expected from previous experiments. It was found that the cause of this was that from the greater number of layers the fish did not become embedded in the pads sufficiently. The use of the pads was then done away with and the following method adopted. A portion of saw-dust was added to the moss, a number of light frames were made of two inch by one and a half inch lumber, six feet in length and three feet in width. One of these is laid upon the floor and a layer of dry moss and saw-dust is spread therein. This is covered with a sheet of cotton cloth large enough to envelop the

frame, a layer of fish is spread therein but inside the edge of the frame and face downwards, which is covered by another sheet of cotton. Another frame is placed immediately over the first one and the process continued till the whole of the fish is spread, or till a height of three or four feet is attained, a thicker layer of moss or saw-dust being placed over the last tier of fish. A platform of boards just sufficiently large to go inside the frame is laid over all. Weights, a lever or screw pressure is then applied to thoroughly embed the fish in the absorbent. The spreading of the moss and saw-dust over the layer of fish fills up the interstices between them and brings every part in contact with the absorbent and at the same time prevents the fish being pressed out of shape.

"Two lots of fish (Kench) of 600 pounds each have been subjected to this new method with the following results:—

"After four pilings between the absorbent, it being renewed each time, 30 and 33 per cent of the moisture was extracted, leaving $12\frac{1}{2}$ to 15 per cent to be taken out by the final exposure to the sun and air. The extraction of that percentage of moisture secures the fish from damage and they can be piled in store until such time as may be suitable to finish the process by exposure to the sun and air.

"Neither of these lots was fit to ship as samples, as they were badly handled when first caught, and split and much discoloured from the blood left in them at that time.

"On 23rd March, Mr. Thompson purchased from Messrs. Boak and Bennett, 300 lbs. of green codfish for experiment and the following is a detailed account of the result:—

"There were 97 fish in this lot, and after they had been cleaned, split and heads cut off, they weighed 200 pounds.

On the 25th March, they were placed under pressure as previously described. They were then taken out, weighed and replaced as follows:—

March 28,	after 72 hours' pressure,	weight....	170,	loss 15	per cent.
do 30	do 48	do	.... 155	do $7\frac{1}{2}$	do
April 2	do 72	do	.... 144	do $5\frac{1}{2}$	do
do 5	do 72	do	.... 134	do 5	do
do 7	do 48	do	.... 128	do 3	do

"The total hours pressure was 312 and the moisture extracted was 36 per cent.

"The weather was not favourable, being too cold.

"Warmer weather would no doubt have yielded quicker results.

"The periods under which the fish were allowed to remain under pressure, were in some instances longer than was necessary, owing in one case to the intervention of Sunday.

"The means by which the pressure was applied was not the best. A screw was used and of course as the moisture was extracted the fish shrank and the pressure was relaxed. A uniform pressure by means of a lever with weight would no doubt have been better.

"The fish during the several processes were subject to inspection by the department and also by practical fish merchants, and I append hereto a certificate which speaks for itself.

"I think the result so far establishes the fact, that, by Mr. Thompson's process, sufficient moisture can be extracted by simple and cheap means to secure the fish against damage at times when drying under the ordinary process would be impossible.

"The process could be employed with great advantage by fishermen at the place of catch, as the moisture could be removed from the fish continuously and quite independent of weather.

"They could then be placed in pile and the first fine day taken advantage of for the final drying.

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“For the fish which have been the subject of Mr. Thompson's last experiment, six hours in the sun should suffice for the United States market and from one to two days to make them suitable for the Brazil market, where hard and very dry fish are required.

“Mr. Thompson proposes to continue his process in the same way with fish sufficient to turn out about five quintals. When this is done, the final test of sale in a foreign market can be made and a further report will be forwarded.”

“We the undersigned, have examined green salted codfish, from which moisture has been extracted, under Mr. Cathcart Thompson's process of absorption. It is our opinion that the extraction of 30 per cent will secure the fish from damage until suitable weather offers for their final drying by exposure to sun and air, for the removal of the remaining 10 per cent to 15 per cent. This, we think, would not require more than from six hours to two days (good drying weather) according to the market for which they are intended.

“Dated at Halifax, 11th April, 1892.

“WILLIAM T. BENNET of BOAK & BENNET.

“FRANK J. PHELAN of JAS. F. PHELAN & SON.

“C. A. STAYNER of E. G. & C. STAYNER.

“L. HART of L. HART & SONS.”

THE WHITMAN'S METHOD OF DRYING FISH ARTIFICIALLY.

Following on Mr. Thompson's steps: Mr. Thos. S. Whitman, of Annapolis, Nova Scotia, obtained on the 10th May, 1892, letters patent for an improved process of curing and drying fish. The advantages claimed are that by this process, fish can be cured much quicker than by the present system. Fish, as now prepared for exportation, occupies about three weeks in curing, and Mr. Whitman claims that by his process, the work can be done in about forty-eight hours. The exact quantity of moisture desired can also be retained in the fish, so as to suit the taste of customers.

The following is a description of Mr. Whitman's process:—

“The wet salted fish are taken from the ketch, and washed, after which surface water and pickle is pressed out of the fish by steam press or otherwise. After having been in press for a few hours, the fish are ready to be spread on the wire ‘flakes’ or trays that are placed in rows about nine inches apart; the rows of flakes or trays being contained in compartments that are traversed by pipes in which steam or hot water is permitted to circulate. The maximum temperature which the steam, or hot water, in the pipes can impart to the compartments is about 95° Fahrenheit.

“The fish having been spread upon the trays or flakes in the compartments are allowed to remain in a temperature of 90 to 95 degrees for a few hours, until they are thoroughly warmed, whereupon currents of cool dry air are forced over and under the fish on these flakes or trays. These currents of dry air come from channels or flues that open into the compartments. By opening and closing these cold dry-air flues at proper intervals, of say, two or three hours, thus alternately cooling and heating the fish, from one to two per centum of moisture per hour is taken from the fish. The products of evaporation are carried off from the compartments by flues running to a chimney, or suitable ventilators may be placed in the tops of the compartments, for carrying off the moisture to the roof of the building, or otherwise. It will be perceived that if the heating process were carried on by itself, the atmosphere surrounding the fish would soon be charged with moisture to such an extent as to prevent any further evaporations, and the fish too would be injured by being warmed for too long a time, or too thoroughly. The currents of fresh air which I alternate with the heating process described, serve to bring down the temperature

of the fish, and also to carry off the moisture-laden atmosphere which surrounds the fish, bringing into action fresh air which is ready to be charged with new moisture carried away from the fish by the next heating process.

“ Although I prefer to carry on my improved process by the alternate heating of the fish and exposing the same to a current of fresh air, good results will also follow if the heating is carried on in the chambers at the same time that currents of fresh air are passed through said chambers.”

“ What I claim therefore is :

“ 1st. The process herein described of curing fish, which consists in exposing the fish to artificial heat and currents of fresh air, substantially, as specified.

“ 2nd. The process herein described of curing fish, which process consists in exposing said fish alternately to artificial heat and to currents of fresh cool air, substantially as specified.

(Sd.) THOMAS S. WHITMAN.”

A correspondent writes as follows in the Yarmouth *Herald* of 18th July, 1893, respecting the success of Mr. Whitman's fish-drying apparatus :—

“ Within the last few days I have had the privilege of visiting the extensive new fish-drying apparatus that has been put in operation in this city by the inventor, Mr. Thomas S. Whitman, of Annapolis. The building containing the apparatus and storage rooms has been constructed and completed, and operations have commenced within the last month. It is a very large building, 50 x 120, and is situated on Liverpool wharf, where there is ample wharfage and where a large amount of fish can be taken care of. Entering the building a very busy scene meets the eye; thousands of quintals of fish were to be seen in the various processes of washing, drying and packing for the largest fish markets in the world. I was particularly struck with the rapidity of the operation. Mr. Whitman buys all the green salted fish that offers; by his process they are dried perfectly in forty-eight hours, and are ready to ship in less than a week from kentch. It is certainly a new departure in the handling and curing of fish. The new system invented and introduced by Mr. Whitman is a perfect drier, and at the same time the fish are so kept apart from each other during the entire process of drying, that they are also kept cool, the atmosphere by which they are dried being of about the same temperature that is required in the natural system of drying. It is astonishing to note the vast quantities of fish that can be cured in a short time; several thousand quintals per week is the capacity of this large concern, and it is certainly a busy hive of industry, one of the busiest in the provinces.

“ To-day your correspondent was shown about 8,000 quintals of fish that were being dried, and most of them were in the sea only a short time ago, and before the week closes they will be shipped in perfect order to the fish markets of the West Indies. Considering the large amount of foggy, wet weather that the people of the western counties generally have to meet during their fish-drying season, it would evidently be to the advantage of our largest fish packers if they were to adopt the methods now used and invented by Mr. Whitman, for it is evident that a vast amount of time is thus saved in the curing of fish, while the uniformity of the curing is maintained throughout, every fish appearing in perfect order as a result of this process. As I stated before, it only required forty-eight hours to thoroughly dry the fish, and they are then ready for shipment to any part of the world. No doubt your readers who are engaged in the fishery industry will seek an early opportunity of ascertaining from Mr. Whitman the cost of fitting up an establishment, and from what I have seen of the work done here, I have no doubt but that Yarmouth would be a splendid centre for this new and successful fish-drying apparatus.”

As both the above systems of drying fish artificially appeared to be successful, the department caused inquiries to be made, through its officers, for the purpose of ascertaining where, and to what extent, and with what results these experiments had been carried out.

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The following information on this subject has been received from Mr. Whitman:—

“HALIFAX, N.S., November 28th, 1893.

“The Department of Marine and Fisheries,
Halifax, N.S.

“DEAR SIRS,—At your request I send the enclosed estimate of business done by our patent process this season. We are now carrying on a general fish business, drying green and out of condition fish, either on our own account or for others. At this season of the year we make a specialty of putting half dried fish in condition, such that otherwise would have to be held till spring. We are now negotiating for a large quantity of half dried fish at St. John's, Newfoundland, at which place from one to two hundred thousand pounds of soft fish are annually held over. Our great difficulty at Halifax is the poor quality of fish offered owing to not being properly dressed and washed, on which account several cargoes had to be rejected. We have successfully put through a cargo of French fish, in bond, under permission from your department, and are now drying samples for St. Pierre parties which will probably result in business.

“The inclosed statement only includes fish dried on our own account, besides which we have dried a considerable quantity for outside parties.

“Yours very truly,

“A. HANFIELD WHITMAN.”

HALIFAX FISH DRIER.

“The drier commenced operations the first week in July, and handled the following amount of fish up to November 24th, 1893:—

2,000,000 pounds of green fish bought at average price of \$2 per 100 pounds.....	\$ 40,000	
Cash paid, labour, drying and shipping....	5,000	
Cash paid, cooperage.. .. .	2,500	
Cash paid, truckage, wharfage and salt.....	2,000	
Amount to cover insurance, rent, interest and profit.....	4,500	
Export and in store, 13,500 qtls. dry fish at an average value of \$4 per qtl		\$ 54,000
	<u>\$ 54,000</u>	<u>\$ 54,000</u>

HALF DRIED FISH.

1,200 qtls Newfoundland fish at \$4	\$ 4,800 00	
400 qtls. French fish dried, in bond, under permission from department, \$800.....	5,600 00	
Expense drying, 15 cents per qtl.....	240 00	
Dried weight of the Newfoundland lot, 1,165 qtls., loss, 35 qtls. at \$4.....	140 00	
Dried weight French fish, 340 qtls., loss in weight 60 qtls. at \$2.....	120 00	
Amount to cover incidental expenses and profit	422 50	
Exported and in store, 1,165 qtls. dry fish at \$4.50 per qtl.....		\$5,247 50
340 qtls. dry fish at \$3.75 per qtl.		1,275 00
	<u>\$ 6,522 50</u>	<u>\$6,522 50</u>

“The above figures are estimated as near actual value as possible.”

Signed, A. H. WHITMAN.

OPERATIONS.

(*Extract from a Letter from Thos. S. Whitman.*)

"There are now two fish drying establishments being worked under my patent process.

"A Company (Joint Stock) has been formed at St. Johns, Newfoundland, to operate my process of fish drying at that Port. Negotiations are now pending with fish dealers at Lunenburg, Yarmouth, N. S., Paspébiac, Gaspé, in Quebec, for fish driers by my process.

"At Annapolis, N. S., 1892.—Four buildings were erected in the summer of 1892. One 40 by 80 with a wing 30 by 50; both two stories. A kench house for storing green fish, 25 by 120, and a salt store 25 by 30. On the upper floors of the larger buildings are placed drying compartments, with a spreading surface for fish equal to 250 quintals.

"At this establishment, in the season of 1892-93, there was purchased from fishing vessels, bay, grand bank, and shore boats, 1,345,913 lbs. green codfish; 240,000 lbs. green haddock; 374,000 lbs. green hake and pollock; for which there was paid on delivery in cash, \$39,960.00. These fish were all dried thoroughly and prepared for market during the winter months of 1892-93.

"At this Annapolis fish drier, there has already been purchased in 1893, 1,236,606 lbs. of green fish, at a cost of over \$15,000.00 in cash paid to the fishermen; and the drying is now being done at this date.

"At Halifax, the second fish drying establishment under my patent process has been put in operation at Liverpool wharf, Halifax City. Buildings have been erected the past summer for this purpose, one 50 by 120 feet, three stories; one 30 by 70 feet, three stories. On the third floor of the larger building is placed a fish drying apparatus of my process, of a capacity to spread at one time (in a closed compartment, 30 by 90 by 7 feet) about 500 quintals of green fish. This compartment is heated by about 30,000 lineal feet of inch wrought iron pipe, under hot water system; and the current of air forced by two 90 inch exhaust fans. These fans (as well as the elevators from first to third floors, has a powerful force pump for supplying sea water to the wash room on the first floor) are all worked by a 20 H. P. steam engine. On the second floor is a storage and packing room, fitted with an hydraulic press, used for packing in place of a screw.

"In Halifax our drying operations only commenced on the 1st of July, 1893, and up to the 1st December, five months, there has been 2,000,000 lbs. of green codfish, hake and haddock, thoroughly dried in this establishment. The most of these fish have been already exported, and with what remains now in store has turned out 13,500 quintals of hard dried fish. Many of these fish were purchased early in the season from the first arrivals of bay and bank fishing craft, at prices for the green fish 30 to 35 per cent over prices now current. Notwithstanding this, the average cost of our five months work for hard dried fish (\$4 per quintal) is still under the value in the Halifax market.

"For these 2,000,000 lbs. of green fish we paid in cash over \$40,000.00, or about 2c. per pound for green codfish, while the present market price is 1½c. per pound.

"In addition to drying green fish in the time named, we have thoroughly dried about 2,000 quintals of half dried fish, including some lots of fish dried for the Halifax fish merchants.

"A joint stock company has been formed at St. John's, Newfoundland, for the purpose of operating one of my fish driers in that city; and more particularly fish that are received from the outports and Labrador, in a partially sun-dried condition.

"I am now negotiating with firms in the fish trade at Lunenburg and Yarmouth, N. S., as well as at Paspébiac, Gaspé, Quebec and St. Pierre Miquelon, for the erection of fish driers by my process."

Inspector Hockin writes, under date 2nd December, 1893, that when in Halifax, he endeavoured to ascertain how matters stood regarding the Thompson process of artificial drying of fish, and was informed by reliable persons, that no progress had been made with it.

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On the other hand, what is known as the Whitman process is being pushed forward. Mr. Hockin visited a large establishment in Halifax, and saw a large quantity of fish being operated upon. He was further informed that so far as the curing of the fish is concerned, there was no doubt about the success of the process, and that the only question to be solved was whether the venture would give an adequate return for the outlay. It affords a ready means to cure fish taken at seasons and during weather in which they could not otherwise be saved. Mr. Whitman has two establishments working under his patent process: one in Halifax, having a capacity of about 1,200 quintals of dry fish per week, and one at Annapolis, of a capacity of about 600 quintals.

THE FISHERIES OF THE GREAT LAKES.

A COMMISSION OF INQUIRY INTO THE FISHERIES.

A Government International Commission, and the Commission, issued this year, show that there is an expression of alarm respecting the diminution of the finer grades of fish in the waters of Ontario. The Canadian fishermen are heard at times to complain of the severity of restrictions, or proposed restrictions upon their operations. It may be interesting to set forth some of the facts relating to the questions which are of such importance. Indeed, when the facts are examined many of the fishermen will, it is hoped, be ready to co-operate with the Department of Marine and Fisheries.

The fisheries of the great lakes of Ontario are the most extensive lake fisheries of the world. In these waters are found the whitefish, salmon-trout, herring, sturgeon, bass, pickerel, &c. An extensive and lucrative trade has sprung up in the business of catching, buying, freezing and preparing these fish for sale through the Dominion, and for export to the United States. Fishing tugs, sail boats, storehouses and freezers are required. This industry, therefore, gives employment to a large number of men during a portion of the year. Other industries, such as ice-harvesting, tug and boat building; the making of nets, &c., &c., are more or less dependent on the prosecution and perpetuation of these fisheries.

VALUE OF THE GREAT LAKES FISHERIES.

To demonstrate the productiveness of these waters and the developments of the fisheries, the following tables have been prepared.

The latest statistics published in the annual reports of this department, show that 77 steam tugs, and schooners, and 1,032 sail boats, manned by 2,700 men, were employed on the Great Lakes during the season of 1892. There were over one million fathoms of gill-nets and seines used, and 368 pound-nets; the whole representing an invested capital of over \$700,000. This amount does not, however, include the value of freezers, ice houses, fish cars, piers, wharfs, &c. The value of fish caught amounted to nearly \$2,000,000.

The table below gives the total yield of fish taken during the past ten years. The quantity of fish taken in these waters during that period amounts to 239,470, 174 pounds, valued at \$14,258,510; the principal kinds of fish caught being:—

Herring	81,000,000 pounds
Whitefish	52,000,000 "
Salmon-trout.	50,000,000 "

STATEMENT showing the Total Quantity of Fish caught in the four Great Lakes of Ontario during the last ten Years, from 1883 to 1892 inclusive.

Years.	Lakes.	Whitefish.	S. Trout.	Herring.	Pickereel.	Sturgeon.	Bass.	Other fish.	Total Quantity.	Total Value.
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	\$
Total for the last 10 years, 1883 to 1892.	Superior	7,867,915	8,623,605	.....	798,083	551,387	.....	753,786	18,594,776	1,379,046
	Huron	39,696,773	39,991,964	11,758,896	6,740,701	4,211,635	512,777	6,996,520	109,909,266	7,768,728
	Erie	2,672,355	.....	50,521,884	7,528,139	4,169,150	901,796	7,593,444	73,392,768	3,311,816
	Ontario	2,523,809	1,933,514	18,743,921	1,222,356	.....	1,668,681	11,481,083	37,573,364	1,798,920
	Total	52,760,852	50,549,083	81,024,701	16,289,279	8,932,172	3,083,254	26,830,833	239,470,174	14,258,510

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STATEMENTS showing the Capital invested in Fishing Materials, the Number of Fishermen and the Quantities of Fish taken in

LAKE SUPERIOR.

Years.	Number of Fishermen	Tugs and Vessels.		Boats.		Pound-nets.		Gill-nets.		Total Value.
		No.	Value.	No.	Value.	No.	Value.	Fathoms.	Value.	
			\$		\$		\$		\$	\$
1883.....	*	*	*	*	*	8	3,400	232,787	13,880	
1884.....	167	1	1,000	57	7,525	1	400	194,832	8,993	17,918
1885.....	214	4	6,500	90	8,235	5	1,850	157,624	19,696	36,281
1886.....	270	6	8,800	120	10,270	9	3,300	41,860	24,790	47,160
1887.....	234	6	7,000	102	10,860	15	5,550	62,300	18,904	42,314
1888.....	189	7	11,800	78	8,870	15	5,610	189,075	18,075	44,355
1889.....	149	5	10,650	55	9,110	14	4,650	171,300	14,865	39,275
1890.....	119	6	9,200	42	5,160	15	5,340	94,612	9,085	28,785
1891.....	174	8	15,500	74	7,025	74	14,800	62,500	11,550	48,875
1892.....	200	9	20,960	64	8,900	48	10,400	72,100	15,900	56,160

* Not published for that year.

LAKE SUPERIOR—Continued.

Years.	Whitefish.	Salmon-trout.	Sturgeon.	Pickereel.	Other fish.	Total Value.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1883.....	635,800	904,397	30,000	68,000	210,000	116,533
1884.....	564,950	645,500	400	10,800	2,000	77,790
1885.....	606,160	911,574	41,500	83,000		111,871
1886.....	847,160	842,154	41,480	152,988	77,625	134,033
1887.....	657,160	503,000	120,960	69,100	67,261	116,680
1888.....	932,180	971,280	54,518	90,219	60,000	159,238
1889.....	896,000	1,020,500	71,329	117,940	77,000	173,846
1890.....	978,400	692,200	97,400	90,000	81,300	150,713
1891.....	966,465	1,077,300	43,960	71,536	113,000	177,681
1892.....	783,640	1,055,700	49,840	44,500	65,600	160,661
Totals	7,867,915	8,623,605	551,387	798,083	753,786	1,379,046

STATEMENTS showing the Capital invested in Fishing Material, the Number of Fishermen and the quantities of fish caught in

LAKE HURON, INCLUDING GEORGIAN BAY.

Years.	Number of Fishermen.	Tugs and Vessels.		Boats.		Pound-nets.		Seines.		Gill-nets.		Other Fishing Gear.	Total Value.
		No.	Value.	No.	Value.	No.	Value.	Fath.	Value.	Fathoms.	Value.		
			\$		\$		\$		\$		\$		\$
1883	*	*	*	*	*	53	23,869	.....	.....	627,456	91,829	60	.....
1884	1,234	20	71,500	402	34,403	92	39,150	3,700	3,455	599,238	92,000	200	240,808
1885	1,075	15	53,800	339	48,694	70	30,900	4,500	5,770	441,482	55,900	.....	195,064
1886	981	19	44,050	299	53,310	49	20,500	5,264	4,685	685,465	75,897	375	198,817
1887	990	18	64,700	322	44,530	67	30,305	5,014	10,345	1,089,489	108,165	.....	258,045
1888	1,169	33	95,600	352	48,456	86	28,250	13,088	8,910	534,290	156,856	160	338,132
1889	1,139	32	86,600	343	47,744	55	20,580	4,563	9,733	933,035	149,407	437	314,501
1890	1,190	38	78,100	387	60,550	66	18,000	4,879	10,110	1,093,800	186,605	.....	353,365
1891	1,249	30	62,700	398	66,975	100	28,240	2,986	3,275	1,183,650	183,830	.....	345,020
1892	1,142	32	92,400	365	62,435	106	28,600	7,390	5,080	776,227	221,320	.....	409,835

* Not published for that year.

LAKE HURON—Continued.

Years.	Whitefish.	Salmon-trout.	Herring.	Pickarel.	Sturgeon.	Bass.	Other fish.	Total Value
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	\$
1883....	2,288,392	3,328,625	871,800	790,439	177,200	13,800	1,205,700	536,867
1884....	2,342,694	4,082,814	1,408,200	794,434	372,041	7,800	713,100	624,746
1885....	2,654,260	3,979,990	1,570,000	600,342	825,800	10,500	653,900	627,398
1886....	2,380,849	3,317,896	801,000	490,747	831,775	44,317	555,068	560,565
1887....	2,990,006	3,230,595	1,420,800	280,443	373,878	34,900	517,216	628,404
1888....	5,183,338	3,607,288	1,141,300	609,501	450,754	90,000	388,309	825,691
1889....	5,213,478	3,809,247	955,900	757,008	271,417	128,500	408,729	867,837
1890....	5,930,820	4,906,890	1,425,100	817,250	350,800	123,200	493,100	1,047,725
1891....	4,504,780	4,635,360	956,640	686,400	328,220	24,710	1,021,618	915,610
1892....	6,208,156	5,093,259	1,208,156	914,137	229,750	35,050	1,039,780	1,133,885
Totals..	39,696,773	39,991,964	11,758,896	6,740,701	4,211,635	512,777	6,996,520	7,768,728

Fisheries Report.

STATEMENTS showing the Capital invested in Fishing Material, the Number of Fishermen and the quantities of fish caught in

LAKE ERIE.

Years.	Number of Fishermen.	Tugs and Vessels.		Boats.		Pound-nets.		Seines.		Gill-nets.		Other Fishing Gear.	Total Value.
		No.	Value.	No.	Value.	No.	Value.	Fath	Value.	Fathoms.	Value.		
			\$		\$		\$		\$		\$		\$
1883	*	*	*	*	*	101	23,840	.....	2,045	.....	.....	66	.....
1884	303	3	3,200	150	8,600	112	29,215	3,100	3,608	4,287	405	78	45,106
1885	346	.....	.....	185	50,296	132	37,965	3,800	3,330	16,761	2,028	2,205	95,824
1886	337	11	14,555	163	18,666	126	38,475	1,863	2,280	16,838	2,338	70	76,384
1887	363	9	12,430	153	15,673	143	48,695	2,882	4,030	9,322	1,330	50	82,208
1888	460	12	18,400	207	16,391	194	60,602	3,848	3,515	13,055	1,762	60	100,730
1889	465	15	22,600	233	18,520	195	65,575	5,933	3,953	8,392	1,950	160	112,758
1890	526	12	16,700	264	18,775	197	56,810	6,675	4,275	24,600	12,349	.....	108,909
1891	497	16	39,250	272	18,928	206	55,110	5,427	2,875	27,610	6,285	.....	122,338
1892	515	23	62,800	245	22,397	210	73,100	7,840	4,775	22,350	5,090	.....	168,162

* Not published for that year.

LAKE ERIE—Continued.

Years.	Whitefish.	Herring.	Pickarel.	Bass.	Sturgeon.	Other fish.	Total value.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	\$
1883	221,628	2,212,200	188,414	111,440	222,530	762,000	118,428
1884	227,803	2,751,000	174,597	54,260	316,020	699,680	137,899
1885	186,080	5,935,400	685,102	110,427	459,265	278,453	242,774
1886	141,643	3,421,639	827,659	38,000	349,854	331,150	262,357
1887	333,006	6,302,816	930,984	98,839	609,609	493,590	431,433
1888	389,836	5,934,176	469,581	91,819	469,581	578,270	446,304
1889	306,213	6,902,563	901,677	109,966	411,741	993,593	487,604
1890	204,322	5,393,000	961,350	134,650	580,610	1,149,960	422,464
1891	349,874	5,542,810	894,660	96,935	387,630	1,037,948	354,647
1892	311,950	6,126,280	1,494,115	55,460	362,310	1,274,800	407,906
Totals	2,672,355	50,521,884	7,528,139	901,796	4,169,150	7,599,444	3,311,816

STATEMENT showing the Capital invested in Fishing Material, the Number of Fishermen and the quantities of fish caught in

LAKE ONTARIO.

Years.	Number of Fishermen.	Tugs and Vessels.		Boats.		Pound-nets.		Seines.		Gill-nets.		Other Fishing Gear.	Total Value of Fishing Material.
		No.	Value.	No.	Value.	No.	Value.	Fath.	Value.	Fathoms.	Value.		
			\$		\$		\$		\$		\$		
1883	*	*	*	*	*	2	900	.....	7,655	104,926	13,113	800	.....
1884	480	4	2,400	204	8,945	2	270	10,800	6,874	133,397	14,316	3,100	35,905
1885	480	3	3,000	190	10,009	2	250	8,350	4,974	108,500	16,993	1,110	36,336
1886	462	5	4,300	308	10,928	3	450	6,733	5,454	111,325	16,844	2,225	40,201
1887	459	4	8,300	209	17,774	.....	.....	5,100	9,505	110,450	14,980	2,220	52,779
1888	580	4	8,300	225	9,528	.....	.....	7,440	5,615	136,900	14,380	3,640	41,463
1889	604	6	11,550	231	11,140	.....	.....	7,940	6,055	167,734	23,721	3,604	56,070
1890	565	4	9,200	220	10,810	3	450	7,050	5,457	137,500	19,450	2,570	47,937
1891	528	4	8,500	220	11,817	3	600	15,512	4,865	115,026	20,150	4,985	50,917
1892	586	10	11,020	270	30,755	3	375	4,765	4,845	144,355	19,190	4,936	71,121

* Not published for that year.

LAKE ONTARIO—Continued.

Years.	Whitefish.	Salmon-trout.	Herring.	Maskinongé.	Bass.	Pickereel.	Other Fish.	Total Value.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	\$
1883....	96,300	296,000	491,400	190,000	205,800	145,400	848,000	125,129
1884...	176,400	367,580	1,448,800	135,550	202,962	128,050	1,131,025	145,307
1885,...	256,800	289,340	1,503,800	178,900	220,920	206,200	1,287,555	162,081
1886....	166,149	218,766	1,106,615	236,215	149,350	70,810	586,808	133,451
1887....	193,234	103,475	1,485,826	132,760	148,890	111,274	1,090,805	154,128
1888....	270,050	84,545	2,993,662	256,025	163,710	104,270	791,818	240,913
1889....	269,396	110,548	2,965,608	237,510	93,584	98,352	742,626	226,625
1890....	246,850	100,760	2,480,900	195,956	131,745	83,200	865,870	203,971
1891....	368,030	165,350	2,265,500	199,870	155,600	70,000	1,136,695	198,277
1892....	480,600	197,150	2,001,810	121,500	196,120	204,800	1,115,695	209,038
Totals..	2,523,809	1,933,514	18,743,921	1,884,286	1,668,681	1,222,356	9,596,797	1,798,920

Fisheries Report.

LAKE SUPERIOR.

Lake Superior is 390 miles long by 160 miles wide, with an area of 31,420 square miles. Fishing is chiefly carried on with gill-nets and pound-nets. No seines are used. There are 9 steam tugs and 70 sail boats employed fishing on this lake.

The yield of the fisheries, for the past ten years, is given at 18,594,000 pounds, valued at \$1,379,046, chiefly consisting of salmon-trout and whitefish. In 1883, the whitefish fishery yielded 630,000 pounds, and in 1891, 960,000 pounds. The only other kinds of fish reported from this lake, are sturgeon and pickerel, which show considerable fluctuations.

LAKE HURON.

Lake Huron, including Georgian Bay, is 400 miles long by 160 wide, covering an area of 24,000 square miles. Its fisheries employ about 1,150 men, using 32 tugs and 365 sail boats. Pound-nets are used in Lake Huron proper, and in the north channel, but not in Georgian Bay, where they have been forbidden since 1884. Gill-net fishing only is permitted in Georgian Bay. The number of pound-nets has doubled during the past ten years, being now 106.

The total value of fish caught in Lake Huron during the past ten years aggregates more than the whole product of all the other great lakes put together. The staple kinds of fish are whitefish and salmon-trout, which yield about 40,000,000 pounds each; herring, 11,750,000 pounds; pickerel, 6,750,000 pounds; sturgeon, 4,000,000 pounds; bass, pike, and other fish, yielding an aggregate of 110,000,000 pounds since 1883.

The total yield of last year indicates a value, more than 100 per cent over the year 1883. During the past six years the yield of whitefish has trebled; that of salmon-trout nearly doubled; while the catch of herring and pickerel has considerably increased.

LAKE ERIE.

Lake Erie is 250 miles long by 60 miles wide, and covers an area of 10,000 square miles. The principal kinds of fish taken in these waters are herring, pickerel, sturgeon, whitefish, bass, &c., yielding an aggregate of 73,000,000 pounds during the past ten years, valued at \$3,300,000. Herring is now the staple fish of these waters; its catch exceeds that of all the other kinds of fish put together, and has trebled during the past ten years. The most noticeable fluctuation occurs in pickerel, which yielded only 188,000 pounds in 1883, and 1,494,000 pounds in 1892; an increase of over 600 per cent. Whitefish and sturgeon show an improvement during the past ten years. During the last six years, the catch of whitefish did not vary much. Although the catch of sturgeon for 1892, shows better than for 1883, it has often been exceeded during that period; especially in 1887, when the catch was double that of last year.

The fishing fleet on Lake Erie consists of 20 steam tugs and vessels, and 245 sail boats, manned by about 500 fishermen, using about 200 pound-nets. Ten years ago, there were only about 300 persons employed fishing 100 pound-nets, an increase of one hundred per cent.

LAKE ONTARIO.

Lake Ontario is 190 miles long by 52 wide, and covers an area of 7,330 square miles. The total value has increased nearly 70 per cent. Herring is now the most abundant fish in these waters; over 2,000,000 pounds having been caught every year, during the past five years the catch of whitefish has increased over 400 per cent since 1883. Salmon-trout, seems to be on the decline, and although the catch for 1892 was as good, if not better than that of the past five years, it fell far short of

that of ten years ago, by about 33 per cent. The other kinds of fish caught in these waters are pickerel, bass and maskinongé. During the ten years past the aggregate yield of the fisheries was 35,500,000 pounds, valued at \$1,798,000.

Fishing is carried on with gill-nets and seines only; about 145,000 fathoms of gill-nets, and 5,000 fathoms of seines being used. There are about 250 sail boats and ten tugs or vessels employed in the fisheries; the whole giving employment to about 500 fishermen. No pound-nets are allowed in Lake Ontario.

RELATIVE POSITION OF THE CANADIAN AND UNITED STATES FISHERMEN ON THE
GREAT LAKES OF ONTARIO.

In the annual report of this department for the year 1891, reference is made to the fact that in view of the restrictions placed by the Canadian Government upon the times and modes of fishing, our fishermen are placed at a certain disadvantage as compared with those of the States. The necessity of these restrictions, however, is there pointed out. The regulation now in force on our Great Lakes prohibits fishing for salmon-trout and whitefish during the month of November; this period being known to be that during which the above fish are engaged in the important act of reproducing their species.

In order to meet the pressing demands of the fishermen, this prohibition was relaxed during the fall of 1893, so as to admit of herrings only being caught in pound-nets, on such grounds as were known not to be frequented by whitefish or salmon-trout. There is no restriction on the mesh of pound-nets, although experience shows that such a measure is necessary to prevent the destruction of young and immature fishes.

The idea that in such extensive bodies of waters, as Lake Superior for instance, the local range of various kinds of non-migratory fishes extends across the water boundary is not borne out.

On the Canadian side of Lake Erie, the number of pound-nets and their distance apart, is regulated in such a manner as not to unduly interfere with each other, and injure the fishermen as well as the fisheries. On the United States side, a different state of affairs prevails. There is no license system there; any one who so desires, may fish; and the consequence is that especially at the head of Lake Erie, pound-nets are crowded one on top of the other, to such an extent that besides seriously interfering with navigation, they are actually driving the fish away from the shore. It is not assumed that Canadian fishermen would advocate free fishing of this kind.

During the course of an investigation into the fisheries adjoining international waters, by Mr. Rathbun, of the United States Fish Commission, and Dr. Wakeham, the other commissioner appointed by Her Majesty's Government, it was ascertained that the fish which visit our side to spawn do not all move to United States waters, but are local in their habits, rather than migratory, and that while it would be better for the fisheries of Lake Erie if the United States would co-operate with Canada, in the protection of fish, the Canadian fisheries of Lake Erie are now greatly benefited by the protection afforded by Canada alone. It is for this reason that while the catch of whitefish on Lake Erie has undoubtedly decreased during recent years, the waters on the Canadian side are better stocked than those of the United States. The fisheries on the Canadian side are not depleted to anything like the same extent as they are on the United States side, and the cost to the fishermen of taking the same quantity of fish is less. It is therefore evident that the restrictions imposed by the Government have prevented our fisheries from becoming exhausted. The same conclusions have been reached by the Fishery Commission appointed by the Canadian Government to make special enquiry into the condition of the lake and river fisheries of Ontario generally.

Alarm exists respecting the decrease of the finer grades of fish in the great lakes.

Fisheries Report.

COMPARATIVE STATEMENT OF THE YIELD AND VALUE OF THE FISHERIES IN THE CANADIAN AND UNITED STATES WATERS OF THE GREAT LAKES.

In the annual report of this department for the year 1891, comparative tables were published showing the variations in the yield and value of the fisheries on both sides of the great lakes. This was done for the purpose of establishing whether the contentions of certain Canadian fishermen that there was an enormous difference in favour of the United States, were founded on facts or not. These tables comprised the years 1880 and 1885. A recent census bulletin, published by the United States Department of the Interior, affords an opportunity of extending these tables by comparing the returns for the years 1885 and 1889, and drawing the conclusions therefrom:—

COMPARATIVE TABLE showing the Yield and Value of Fish caught on both

Lakes.	Whitefish.		Trout.		Herring.	
	1885.	1889.	1885.	1889.	1885.	1889.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Superior.....	606,160 *4,571,947	896,000 *3,898,558	911,574 *3,488,177	1,020,500 *3,366,724	324,000 *324,000	382,123 *382,123
+Huron and St. Clair. . . .	2,711,060 *1,466,505	5,343,348 *2,556,804	4,087,290 *2,539,780	3,809,047 *2,181,346	4,414,200 *2,473,800	1,610,440 *4,659,221
Erie.....	186,080 *3,531,855	306,213 *3,323,772	106,900 *106,900	66,703 *66,703	5,935,400 *19,354,900	6,902,563 *37,200,850
Ontario.....	256,800 *90,711	269,396 *23,383	298,340 *20,510	110,548 *6,500	1,503,800 *403,585	2,965,600 *1,850,140
Totals.....	3,760,100 *9,661,018	6,814,957 *9,802,517	5,288,204 *6,155,367	5,030,095 *5,621,273	11,853,400 *22,556,285	11,478,503 *44,092,334

*Figures represent United States side.

†Huron includes Georgian Bay and St. Clair to mouth of Detroit River.

COMPARATIVE TABLE showing the Number and Value of Fishing Vessels and Lakes for the Years

Lakes.	Fishermen.		Tugs and Vessels.			
	‡Number.		Number.		Value.	
	1885.	1889.	1885.	1889.	1885.	1889.
					\$	\$
Superior.....	214 *914	149 *780	4 *15	5 *9	6,500 *68,100	10,650 *27,350
+Huron and St. Clair. . . .	1,375 *1,164	1,507 *1,444	16 *2	33 *12	55,800 *42,450	88,100 *30,000
Erie.....	346 *4,298	465 *2,181	..... *53	15 *42	..... *178,200	22,600 *143,000
Ontario.....	480 *600	604 *398	3 *2	6	3,000 *4,800	11,550
Totals.....	‡2,415 *6,976	2,725 *4,803	23 *82	59 *63	65,300 *293,550	132,900 *200,350

*Figures represent United States side.

†Huron includes Georgian Bay, and St. Clair to mouth of Detroit River.

‡Fishermen in the United States include the shoremen, while in Ontario they comprise only those engaged fishing.

Fisheries Report.

sides of (Canada and United States), the Great Lakes, for the Years 1885 and 1889.

Sturgeon.		Pickerel and Pike.		All other fish.		Total Value.	
1885.	1889.	1885.	1889.	1885.	1889.	1885.	1889.
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	\$	\$
41,500	71,329	83,000	117,940	.....	77,000	111,871	173,846
*182,760	*84,469	.....	*122,055	*258,216	*30,020	*2,1,523	*280,807
875,870	315,157	710,942	1,010,777	843,400	693,601	725,803	928,387
*443,280	*656,369	.....	*2,724,583	*6,719,600	*4,161,074	*316,590	*427,252
459,265	411,741	702,802	1,030,729	371,180	974,508	242,774	487,604
*4,727,950	*1,244,607	.....	*14,583,471	*23,734,912	*7,143,929	*1,109,096	*1,033,758
50,050	50,400	431,130	254,394	1,412,390	867,278	162,081	226,625
*386,974	*200,927	.....	*184,254	*1,496,686	*424,742	*95,869	*85,431
1,426,685	848,627	1,927,874	2,413,790	2,626,970	2,612,387	1,242,529	1,816,462
*5,740,964	*2,186,372	.....	*17,614,363	*32,209,414	*11,759,765	*1,813,078	*1,827,248

Boats, Nets, &c., and the Number of Fishermen on both sides of the Great
1885 and 1889.

Boats.		Pound-nets.		Gill-nets.		Seines.					
Number.	Value.	Number.	Value.	Value.	Value.	Value.	Value.				
1885.	1889.	1885.	1889.	1885.	1889.	1885.	1889.				
	\$	\$			\$	\$					
90	55	8,235	9,110	5	14	1,850	4,650	19,696	14,865		
*504	*454	*32,635	*29,631	*230	*210	*67,520	*36,810	*7,557	*72,624	*2,920	*3,094
397	433	50,581	49,991	74	55	31,700	20,580	55,900	149,407	10,983	15,493
*764	*623	*37,953	*33,334	*643	*755	*125,900	*123,818	*35,493	*43,116	*8,825	*4,691
185	233	50,296	18,520	132	195	37,965	65,575	2,028	1,950	3,330	3,953
*1,483	*1,063	*120,557	*127,556	*928	*1,838	*252,285	*483,920	*75,507	*94,978	*8,320	*2,150
190	231	10,009	11,140	2	.....	250	.....	16,993	23,721	4,974	6,055
*465	*253	*15,648	*13,232	*14	*172	*6,975	*8,225	*23,952	*13,337	*3,177	*665
862	952	119,121	88,761	213	264	71,765	90,805	94,617	189,943	19,287	25,501
*3,216	*2,393	*206,793	*203,753	*1,815	*2,975	*455,680	*652,773	*213,034	*224,055	*23,242	*10,600

A glance at the above tables shows that while the total yield of the fisheries on the Canadian side of the Great Lakes, during the year 1889, exceeds that of 1885 by over half a million dollars; the fisheries on the United States side remained almost stationary. The actual ratio of increase or decrease on each side was as follows:—

Canadian Side.

Lake Superior, increase.....	55 per cent.
Huron and St. Clair, increase.....	27 do
Erie, increase.....	100 do
Ontario, increase.....	40 do

United States' Side.

Lake Superior, decrease..	3 per cent.
Huron and St. Clair, increase.....	34 do
Erie, decrease.....	6 do
Ontario, decrease.....	10 do

Taking the five lakes together, the Canadian side shows best with regard to the yield of whitefish; the catch having nearly doubled between 1885 and 1889, while it remained stationary on the United States' side. Herring, however, shows better on the United States than on the Canadian side; the enormous quantity of 37,000,000 pounds having been caught in 1889, on the south side of Lake Erie alone. The yield of salmon-trout for the year 1889, was below that of 1885, but it should be remarked that this decline is twice as great on our neighbours' side as on ours. The decrease of sturgeon in our waters is more than made up by the large surplus of nearly 500,000 pounds of pickerel. And again, this decrease in the sturgeon fishery was much more felt on the United States' side than on ours, as can be shown by the following figures:—in 1885, the United States catch of sturgeon, on Lake Erie, was 4,700,000 pounds, and in 1889, only 1,200,000 pounds, while ours shows a decrease of only 50,000 pounds.

The tables giving the number of men and the value of the fishing material, show that while the number of fishermen employed in the United States has decreased 30 per cent during these five years, it increased 12 per cent on our side. The same decline is noticeable in the United States vessels and boats; while our fishing fleet increased 150 per cent. Strange to say, however, while the number of fishermen in United States waters shows a considerable falling off, the fishing implements have largely increased. In 1889, our neighbours used 63 per cent more pound-nets than in 1885, and on Lake Erie their number was doubled. It is a matter for surprise, that these inland waters do not show greater signs of exhaustion when the immense quantity of twine used on the United States side is taken into consideration. In 1889, there were nearly 3,000 pound-nets used in their waters. On Lake Erie alone, they had 1,838, and this enormous quantity has undoubtedly been increased since. On our side, there were only 264 pound-nets in operation during the year 1889, and 368 in 1892; of these, 210 were on Lake Erie.

While the tables show that the value of gill-nets used in the United States waters of Lake Erie in 1889, was \$94,978, our returns give only \$1,950 for the same year, showing the enormous difference in the quantity of twine used for gill-net fishing.

The United States census tables conclusively show that the finer grades of fish are steadily disappearing from their waters. The reason for this is not difficult to find. Their present large catches mostly consist of herrings and other coarse grades of fish. For instance, the census bulletin returns over 5,000,000 pounds of catfish and perch, which are not even classified in fishery statistics.

Fisheries Report.

WHITEFISH CLOSE SEASON ON THE DETROIT RIVER, ETC.

(BY PROFESSOR E. E. PRINCE, B.A., F.L.S., &c.)

That the enforcement of close seasons and other protective regulations for whitefish on the Canadian side of the Great Lakes and border waters should have caused some discontent amongst Canadian fishermen is not surprising. When the dividing waters are narrow as in the Detroit River, St. Clair Lake and River, such dissatisfaction is accentuated. The United States fishermen carry on their operations under no restrictions, and at all available seasons. To our own fishermen, under whose eyes the American fishermen pursue the industry, the rigid enforcement of a close season and other regulations is peculiarly irritating. But any supposed advantages enjoyed by the United States fishermen are found on strict inquiry to be baseless, and on the other hand the alleged grievances on the Canadian side, in these waters, have no better ground. As a matter of fact, the United States policy has proved most injurious to their own fishermen's interests and is wholly and emphatically disapproved by the leading men engaged in the fishing industry in Detroit and other important centres.

Detroit it may be mentioned has one of the greatest fish-markets on the continent, and the view that prevails there is entirely in favour of the Canadian policy. It is not the case that the absence of restrictions on the American side has been detrimental to our fishermen, or that United States fishermen are reaping benefits of which Canadian fishermen are deprived. Careful inquiries on the spot have abundantly shown that.

Any alteration in the existing close season would indeed be an injury to the Canadian fishermen and would bring serious results, leading rapidly to the total destruction of the whitefish fishery.

This is demonstrated by the following facts:—

(1.) The Canadian side is and always has been the chief resort for the whitefish. The great fish-markets of Detroit and elsewhere look to the Canadian side for their main supplies of whitefish, which breed and are hatched and reared in our waters.

(2.) The November schools of whitefish, which pass up the Canadian side are all spawners, just about to deposit their eggs. It is of the highest importance to protect them just at that time—a time which the present close season covers.

(3.) Parent fish in rivers and lacustrine waters when ascending to the spawning grounds always take the most direct course and are not easily turned aside, as experienced fishermen are well aware. No more erroneous idea could be entertained than the supposition that whitefish wander aimlessly hither and thither from one side of a river or lake to the other. In these waters, as in other waters, it is certainly not the case that the schools of breeding fish deviate from their usual course, and cross from side to side so that fish caught by American fishermen during our close season would be caught by Canadians were they permitted to fish at that time.

(4.) Not only has our side been the chief resort for the spawners, but the pollutions of Detroit City and numerous factories on the American side, as well as sewage and other deleterious matters, have tended to drive the whitefish to the purer water on the Canadian side, and thus increased the schools of spawners in our own waters.

(5.) The numberless nets, traps and pounds set in American waters and extending far from shore intercept the migrating fish, break up the spawning schools, and drive them to our side. Our close season affords them freedom from these disturbances, and encourages them to come to our side.

(6.) The persistent and reckless over-fishing carried on at all seasons on the American side has really proved unprofitable and disastrous. The failures among those engaged in the United States fish trade in Lake Erie and Detroit River areas amounted recently to no less a sum than \$600,000 or \$700,000 at a moderate estimate.

In contrast to this, the wise regulations in our own waters have prevented similar ruination and loss to those engaged in the Canadian whitefish industry. "Canadian fishermen do well" was the emphatic statement of one of the leading men in

the fish trade at Detroit this fall: but amongst United States fishermen (in the waters here considered) fishing during the last two falls has been worse and worse, and if no improvement takes place this fall, it is a prevalent opinion amongst Detroit fish merchants that a serious crisis will be reached.

(7.) Whitefish caught in November have for some weeks ceased to feed, and are not only soft, but of less commercial value, because swollen with spawn. After capture these distended spawners are found to shrink so rapidly that they lose 18 pounds to 20 pounds per 100 pounds weight, and realize a considerably diminished market value. Fish merchants are well aware of the diminished value and inferior condition of spawning whitefish. Indeed, inferior No. 2 whitefish, as they are called, have during recent years been quite "a drug" in the market, and it has proved wholly unprofitable to capture and market these fish. The existing regulations in Canada have prevented this capture of inferior and unprofitable fish, and relaxation of the regulations could prove beneficial to nobody in the end.

(8.) Perhaps the best testimony to the wisdom and utility of the department's regulations is furnished by the attempts to establish in the State of Michigan similar close seasons. Were the present policy on the opposite shores so highly satisfactory as many Canadian fishermen at times imagine, such attempts would never be made. So beneficial to all interested has the Canadian policy proved to be, in the opinion of many leading men in the State of Michigan, that in order to save their fisheries from destruction in these waters, earnest efforts have been made and no doubt will be made again to imitate our restrictions and regulations and enforce them on the United States side.

Were such uniform regulations enacted and enforced the alleged grievances of Canadian fishermen would disappear, the planting and artificial propagation of whitefish on both sides would have fair play, and the future welfare of the fisheries in these waters would be assured.

CLOSE SEASON FOR WHITEFISH AND SALMON-TROUT ON THE DETROIT RIVER.

(BY COMMANDER WILLIAM WAKEHAM, M.D.)

The undersigned holds that there can be no difference of opinion as to the absolute necessity of a close season for the above fish.

All evidence points to the fact that in Lakes Ontario and Erie, as well as in the Detroit River and Lake St. Clair the fisheries have decreased.

It is a sufficiently well established fact that all fish of the salmon tribe return to the same spawning grounds, in the case of the whitefish and salmon-trout, it is well known that as the end of October approaches they move out of the deep water where they pass the greater part of the season, towards certain well known grounds, generally reefs, gravel bars, hard sand banks, or flat honey-combed rocks, in shoal water and generally well in shore, and that on these grounds between the end of October, and the first of December they deposit their spawn, returning to deep water as soon as the act of spawning is over.

Whitefish and trout do not remain long on the spawning grounds, they come in slowly, but directly they have spawned they return to deeper water. It is not the case that what are called Canadian fish are taken to any great extent in United States waters, a few may straggle from the schools but the great mass of the fish that spawn in our waters never get within reach of seines or pounds fished on the other side.

Until within the last few years, it was at this season (in November) that fishermen did most of their fishing for these fish, and it was undoubtedly by taking the fish in great numbers on their spawning grounds, before they had deposited their eggs, and by hauling the seines directly over the beds of eggs, that the great destruction of salmon-trout and whitefish was first begun. At one time these fish were only taken in the time and manner described above, and they were not fished to any extent during the rest of the season, but now this rest is not given them,

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they are fished for in deep water, and are followed day by day in all their migrations, so that they really have no asylum whatever. No fishery could stand this. In the case of the salt water fishes there are always times when they get far beyond our reach and thus get a rest. This is not the case in the inland waters; large as the great lakes are, the fish are followed all over them, so that they can always be taken. In view of this, it is of the greatest consequence that during the breeding season, when the fish approach the shores during November, they should be most strictly protected. It is quite possible that in certain localities when the fish congregate to spawn, and where seines have heretofore been used, that the stoppage of all fishing in November may entail some hardship, but none the less, the regulation should be enforced, as it is better that a few should suffer for the moment than that the main fishery of a great lake should be permanently injured.

The regulation stopping all fishing in November may, in some places where the dividing waters are narrow, be felt to be severe by some of our fishermen, from the fact that their fellows in the United States waters are bound by no such restriction. At the first thought this may to some seem unreasonable, but when it is known that in most places where our waters join those of the United States, the fisheries on the Canadian side are not depleted to anything like the same extent as they are on the United States side, and that the cost to the fisherman of taking the same quantity of fish is greatly less on the Canadian side, as our men are not compelled to use anything like the same amount of outfit. It is well to consider why this is so, and if we do, we must admit that the reason for these facts is that the wise restrictions imposed by the department have prevented our fisheries from being exhausted to the same extent as they are on the other side. No thoughtful fisherman considers the absence of all regulations on the United States side, as wise or prudent, their own best fishermen and fishery authorities all lament the condition of affairs, and do not hesitate to say that unless some regulations and restrictions, such as we have in force, are soon applied on their side, the end of their fisheries in Lakes Erie and Huron is not far off. Several of their large fishing firms have recently failed, owing to the fact that their fishermen were not able to pay back the enormous sums advanced them for outfits, and all their best fish houses are looking to Canada to furnish the fresh fish supply of the future. In view of this, I think it clearly behooves us to look sharply after our fishery regulations, and chief of these must be the close season during the spawning month.

I could not advise any relaxation of the regulation fixing the close season for whitefish and salmon-trout.

INTERNATIONAL FISHERIES COMMISSION.

In view of the work of the Commissioners appointed on behalf of the United States and Canada to enquire into the condition of the fisheries in waters contiguous to both countries, it may be useful to repeat much that has been said upon the subject involved in previous reports of this department.

Some of the following statements are therefore taken from these reports :—

INTERNATIONAL LEGISLATION.

Under this head the following observations occur in past annual reports :

“ 1872 :—The rapid diminution of marketable fishes in those waters which border on the United States and Canada, particularly between lakes Erie and Huron, claims early attention. Whilst within Canadian jurisdiction certain established rules control the dates and methods of fishing, there are practically no restrictions in the adjoining limits; consequently much of the good which our fishery laws design to accomplish is frustrated to the mutual damage of fishing pursuits in these waters. If it were possible to induce the State Governments of Michigan, Ohio, New York and Vermont to unite in ascertaining how far and in what manner the prevalent causes of deterioration may be affected by judicious legislation, and promptly enforce some moderate restrictions, I should suggest assimilating as closely as practicable the necessary existing regulations enforced by Canadian officials.

"There is every reason to believe that the effect would prove mutually beneficial, and we might confidently expect a marked improvement in the almost international fisheries of bordering waters.

"1873.—The manifest decline of the fisheries on the American shores of the Great Lakes has induced special efforts to restore them. In this the Federal and State Governments are co-operating. Where these waters border closely on the United States and Canada, it becomes a common necessity to assimilate as nearly as practicable the local fishery regulations. This is very easy as respects the Dominion, owing to the large statutory powers conferred on the Government, and the elasticity of our protective system. There is every desire to assist and co-operate with the Federal and State authorities in attaining such improvements as shall be mutually advantageous to us as near neighbours. Besides the United States Commissioner and his efficient staff of assistants, there are now thirty-seven State Commissioners appointed for purposes connected with the restoration and preservation of these inland fisheries.

"1874.—Reference was made in last year's report to the expressed desire of the Federal and State Fishery Commissioners that uniform legislation should be applied to the fisheries in such waters as border on the United States and Canada. Whenever the necessary restrictions are adopted in neighbouring States, the undersigned will be prepared to suggest such local regulations as may prove mutually beneficial. At present the unrestricted and destructive manner in which fishing is carried on by the United States citizens near our water boundary, compels us to allow greater privileges to Canadian fishermen than consist with the due preservation of fish.

No action having taken place by either the Federal or State authorities, the matter was brought by you under special notice by the subjoined report addressed to the Governor General in Council, on the 23rd of September, 1875:

"The undersigned desires to draw the attention of the Government to a peculiar difficulty attending the adoption and enforcement of restrictive measures for the protection and increase of fish frequenting in common the frontier waters of the United States and Canada. Certain regulations as to the methods and periods of fishing have been found necessary to preserve the young fish from destruction, and to protect the parent fish during seasons of reproduction; also to protect the fishing grounds generally against excessive fishing. Whilst along the Canadian frontier, and on the inland waters connected with the Great Lakes and the River St. Lawrence, these judicious restrictions exist, and the fisheries are steadily improving, no similar restrictions are observed by United States fishermen in adjoining waters. This circumstance occasions great dissatisfaction among Canadians, who regard it as an injury to them that foreigners should thus by unrestricted fishing reap the benefits as well of an increased supply as of unlimited operations.

"The undersigned begs to suggest that official communication should be had with the State authorities of Michigan, Ohio, Pennsylvania, New York, Vermont and Maine, inviting attention to the necessity for legislation on this subject."

An Order in Council based thereon was transmitted to Her Majesty's Minister at Washington, who communicated on the matter with the State Department, and suggested that the attention of the Governors of the States mentioned should be invited to the subject.

A letter was addressed last winter to the United States Commissioner of Fisheries:—

DOMINION OF CANADA,
DEPARTMENT OF MARINE AND FISHERIES,
FISHERIES BRANCH,

OTTAWA, 4th February, 1875.

"MY DEAR SIR,—Having submitted to the Minister (Hon. A. J. Smith) your cordial invitation to join in a meeting of the Fish Commissioners of the several States of the Union and of the United States, in New York next week, for the purpose of mutual conference and consultation on subjects of interest in connection with the multiplication of food fishes, and the necessary regulations for their pro-

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tection, I am to express his and my own regret that the assembling of Parliament this week, and consequent pressure of official business, render it impossible for me to accept. This is the more to be regretted, because, in addition to the pleasure and advantage which such attendance would undoubtedly afford, it also deprives me of an opportunity to witness the discussions of the American Fish Culturists' Association, of which it is my valued privilege to be an executive member. Notwithstanding such disappointment, the Minister feels gratified in being enabled to mark his appreciation of your purpose and responds partially to your wishes, by desiring Mr. Samuel Wilmot, with whose zealous attention to fish culture you are already acquainted, to attend both the conferences of the Commissioners and the proceedings of the Association. Canada takes a mutual interest in the investigations and observations which these able and patriotic bodies are now prosecuting.

"The International object and Continental character with which you endeavour to invest the whole enterprise, are also duly recognized.

"I have read with very great interest indeed, and with considerable profit, the excellent reports emanating from the United States Commission of Fish and Fisheries, and also the suggestive statements of the various State Fishery Commissioners, together with the instructive papers of the American Fish Culturists' Association. The activity and progress which they display, not less than the practical skill and ability which characterize such exertions, claim the hearty congratulations of everybody concerned about an abundance of wholesome food for the nation. Although the field and fruits of our own efforts may be considered small in proportion to those of the neighbouring Republic, we readily perceive that some of the chief difficulties to be met and overcome resemble in character those we have already encountered in Canada. But there is every encouragement to persevere in the knowledge that the general intelligence of the people, once informed and educated by such means as these Commissions and Associations are adopting, will ultimately second your efforts, and must render the work one of permanent national importance. The Canadian Fishery Laws convey ample power to regulate and restrict all modes and seasons of fishing; but, as affecting waters bordering on the United States and Canada, the regulations requisite to ensure due protection and increase for the more valuable varieties of commercial fishes which frequent either shores, are still kept in abeyance, by reason of continued neglect for several years past to restrict in any manner whatever the fishing pursued by the United States citizens to an excessive extent, and by improvident methods, along the frontages of adjoining territories of the American Union. This department would not only be prepared from time to time to assimilate all necessary restrictions in these localities, but would be gratified to find some near prospect of the present hindrances to improving our border fisheries being even gradually removed. If it is intended to re-stock certain of your streams with salmon and shad, requiring access to and from the sea through Canadian channels, it should be early considered under what reciprocal legislation the advantages of this important undertaking may be mutually secured.

"There are, in communications received from you, two points which require more definite notice. The first relates to joint arrangements for hatching whitefish on the Detroit River; and the same reason for indecision explained in my letter of 21st September last still exists. The second refers to continuance of explorations in the Gulf of St. Lawrence. With reference to this service, I am happy to inform you that the department proposes to continue it next season on an improved scale, in conjunction with enlarged facilities for regulating and developing the estuary and river fisheries, and the cultivation of lobsters and oysters around the coasts of Canada. While you are pleased to observe that the limited explorations made by Mr. Whiteaves have proved serviceable to the extensive investigations which you are prosecuting into the marine life of the coast on behalf of the United States Government, each having a direct practical bearing on the fisheries, we can scarcely hope with so small a staff and so few appliances to accomplish anything of sufficient moment to deserve the credit of a co-operative pursuit. Nevertheless, we shall gratefully avail ourselves of the vast and varied information your Commission procures, which in a scientific and practical sense doubtless touches conditions and

productions common to North American waters, and will in return contribute with much pleasure our very humble share to the cause of practical science.

"Be pleased to accept sincere thanks for many courtesies, and to assure your associates both in the Commission and Association of my warmest sympathy and regard.

"I am, my dear sir,

"Very truly yours,

"W. F. WHITCHER,

"Commissioner of Fisheries."

"To the Hon. SPENCER F. BAIRD,

"United States Commissioner

"of Fish and Fisheries,

"New York."

FISH CULTURE.

In connection with the above, the following remarks appeared in the number of 27th December, 1891, of *Forest and Stream*, a leading sporting paper of New York, relative to the jurisdiction of the State of Pennsylvania over the waters of Lake Erie, on a judgment of the Supreme Court declaring that the legislative powers of the state over the waters of Lake Erie were absolute:

"The only rights which the states have surrendered to the general government extend to admiralty and maritime cases. The fishery is regulated by the states. We have, therefore, along the chain of great lakes a body of waters controlled to their middle line by the states, while the other half is under the jurisdiction of Canada; but concurrent legislation in the interests of the fisheries cannot originate between the United States and Canada jointly, for no agreement would be binding upon the latter government as against a commonwealth which has not the treaty-making power. This is the present cause of serious difficulty in the establishment and operation by the United States of a fish hatchery in the State of New York to stock the waters of Lake Ontario. In the resolution of Congress carrying an appropriation for such a hatchery, the stipulation was made that the United States Fish Commission must first be satisfied that New York has taken efficient measures for the regulation of periods for fishing and for proper protection of fish in the spawning season in the waters of northern New York. Just how New York, or any other state, is to arrive at concerted action with Canada, except through the intervention of the general Government, is hard to see; but there exists a strong and perfectly natural public sentiment in most of the states bordering on the lakes against surrendering to the Government such control of the fishery as may be thought necessary for the success of artificial stocking of the waters."

In connection with this matter, Capt. Collins, in the last report of the United States Commission of Fish and Fisheries, speaking of the fisheries of the great lakes, says:—

"The marked diversity in the laws regulating the fisheries of the states bordering on the great lakes is a matter which appears to deserve consideration. The desirability of having some co-operative action on the part of the various lake states would seem to be apparent, in order that legislative enactments might have an equal bearing and influence upon the fisheries and the fortunes of the fishermen."

At a meeting of representatives from Canada and the State of New York to consider and recommend measures looking to the adoption of uniform laws for the protection, preservation and multiplication of the food fish supply of the international waters lying between these respective countries, it was shown that the food fish supply of the great lakes has been for the past thirty years suffering rapid diminution. On the New York side of Lake Ontario, where salmon, trout and whitefish formerly were so abundant as to furnish all the near markets with an abundant supply at prices within reach of the means of the day labourer, the product now scarcely recompenses the netter, and these fish, once so abundant and cheap, are no longer available for food to the multitude, but have become table luxuries to be enjoyed only by people of ample means.

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On the Ohio side of Lake Erie there has been a nearly equal falling off of the higher grades of fish, but there still remains, on account of the greater fecundity of the coarser kinds, a fair supply of what are commonly known as pickerel, blue pike, pike, perch and bass, which still afford a fair market stock at moderate cost.

Further up the great lakes the stock of whitefish is yet abundant.

The cause of the growing scarcity is attributed to the rapid and enormous increase of population in all the states and provinces bordering on the great lakes, which has caused a proportionally increased demand for food of all kinds.

The close seasons in Canada were in 1891, as follows:—Whitefish, 15th October to 30th November; salmon-trout, 15th October to 30th November; pickerel, 15th April to 15th May; bass, 15th April to 15th June. In the neighbouring states the close seasons for the above-named fish are as follows:—Michigan, none; Ohio, none; New York, bass, 1st January to 1st July; Vermont, pickerel and bass, 1st February to 1st June; Maine, none.

In this connection, attention is directed to the following extract from the eleventh biennial report of the Fish Commissioners for the State of Vermont, for the year 1892:—

UNIFORMITY OF LAWS.

When similar conditions and seasons prevail in neighbouring states the operation of the laws for the protection of the fish and game which inhabit such states should be uniform. Many departures from this rule occur in the operation of the laws as between Vermont and the states and provinces contiguous thereto.

As an illustration, the close season for black bass in Vermont ends fifteen days earlier than in New Hampshire, and the citizens of the former state can take bass from the Connecticut when it is unlawful to do the same thing from the New Hampshire side of the same waters. In fact it is a question whether it is illegal in Vermont to take bass from the Connecticut at any season, as Sec. 3873, R. S., relates to the protection of black bass "in the waters of the state," but the west bank of the Connecticut River is the east line of Vermont.

While the above mentioned defects have been the subject of remonstrances from the Fish Commissioners of New Hampshire, they are lost sight of when the condition of affairs in the waters of Lake Champlain, bordering on the Dominion waters of the same lake is brought to the attention of the Commissioners by the lack of uniformity of existing laws for the protection of fish in these contiguous waters, resulting in a serious injustice to the citizens of Vermont.

Reference is made to the Canadian custom of licensing fishermen to catch fish by the use of seines in the Dominion waters of Lake Champlain, generally known as Missisquoi Bay. While only a small portion of Lake Champlain is in Canada, the Canadian portion appears to be the spawning grounds for nearly all the wall-eyed pike of the entire lake.

While tons of these fish are taken in seines on their way to and from the spawning grounds in Dominion waters, it is not lawful to take them in any manner in Vermont waters, or to have them in possession.

With this condition of things, our laws are not sustained by public opinion, and consequently it is impossible to enforce the laws against netting in waters contiguous to Canada without great and unwarranted expense.

The Commissioners do not intimate that the laws of Vermont for the protection of fish in Lake Champlain are defective or perfect, but that the Canadian laws should be in unison with them. Much correspondence on this subject has been carried on between the Commissioners and the Canadian authorities. Finally a full statement of the case was communicated to the Hon. John W. Foster, Department of State, Washington, D.C., and the United States Government is now considering the question with the Government of Canada. The Commissioners entertain hopes that this correspondence will result in necessary measures being taken for the protection of fish in the waters contiguous to the two countries.

At a conference held in Washington during the spring of the present year (1892) between the delegates from the Canadian Government and the Secretary of State of

the United States respecting the extension and development of trade between the United States and the Dominion of Canada, and other matters, among other things the following proposal was submitted:—

It is proposed that a commission of two experts shall be appointed, one by the Government of the United States and one by the Government of Great Britain, to consider and to report to their respective Governments (either jointly or severally) as to the restrictions and regulations which should be adopted on the following subjects:—

1st. The prevention of destructive methods of fishing in the territorial and contiguous waters of the United States and Canada respectively, and also in waters outside the territorial limits of either country,

2nd. The prevention of the polluting and obstructing of such contiguous waters to the detriment of the fisheries and navigation.

3rd. The close seasons which should be enforced and observed in such waters by the inhabitants of both countries.

4th. On the subject of re-stocking and replenishing such contiguous waters with fish ova and the means by which fish life may be therein preserved and increased.

The United States Secretary of State, the Honourable John W. Foster, after referring to the propositions above quoted, points out that the several lines of inquiry indicated come, so far as the United States is concerned, within the scope of the operations conducted for years past by the United States Fish and Fisheries Commission, which in its operations has accumulated a mass of information, much of which would be available in the premises, and that the commission was possessed of resources necessary for any further inquiries without the appointment of a special commission.

Understanding that similar conditions existed in Canada, and as the necessary machinery and considerable of the data requisite to a joint investigation were already available, speedier results could be attained by their utilization, Mr. Foster proposed the following basis for an agreement to be reached by a diplomatic exchange of notes.

DEPARTMENT OF STATE, WASHINGTON, October 4, 1892.

SIR,—As the result of our several recent conferences on the subject of giving effect to so much understanding reached in concert by the Secretary of State and the delegates of the Government of the Dominion of Canada, on February the 15th last, as relates to the prevention of destructive methods of fishing in the contiguous waters of the United States, and Canada, and the preservation of the fisheries thereof, I have now the honour to submit the views of this Government on the matter to the end of reaching a formal agreement thereon.

The proposition of February 15th, 1892, in this regard, was that a commission of two experts should be appointed—one by the Government of the United States, and one by the Government of Great Britain—to consider and report to their respective governments, either jointly or severally, as to the restrictions and regulations which should be adopted on the following subjects:

1st. The prevention of destructive methods of fishing in the territorial and contiguous waters of the United States and Canada respectively, and also in waters outside the territorial limits of either country.

2nd. The prevention of the polluting and obstruction of such contiguous waters to the detriment of fisheries and navigation.

3rd. The close seasons which should be enforced and observed in such waters by the inhabitants of both countries; and

4th. On the subject of re-stocking and replenishing such contiguous waters with fish ova and the means by which fish-life may be therein preserved and increased.

I deem it convenient to thus quote in full the text of the tentative understanding of last February as expressive of the general scope and direction of the enquiries to be jointly set on foot, and as the ground work upon which to essay a fuller and more precise international agreement.

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The several lines of enquiry having relation to the different aspects, whether general or particular, of the questions so presented fall, so far as this government is concerned, within the purview of the operations conducted for a number of years past by the United States Commission of Fish and Fisheries:— Which in its investigations and in the practical application of its methods and making use of the extensive establishment and ample means appropriated by Congress, has massed a stock of information, much of which may be found available for the purpose of investigation and recommendation for which the joint commission is proposed to be organized. I am advised that the United States fish commission has within itself the resources in men and means to conduct such further enquiries in relation to the statistics, methods and condition of the fisheries in question, as to the joint commission, or the American representative thereon, may indicate as desirable for their information.

A similar fish commission is understood to exist in the Dominion of Canada, and to have pursued like valuable investigations and practical operations for a number of years past. The necessary machinery, and a large part of the data for the proposed joint investigation appear therefore, to be already at the command of the Government of the United States, and Her Britannic Majesty's Government, without the necessity for creating other or independent methods for accomplishing the purpose in view, by convention or coincident legislative appropriation. As the subject is to arrive at such concurrent recommendations as may commend themselves to the good judgement of the respective governments and open the way in case of accord thereon for a formal conventional agreement in promotion of the mutual interests of their respective citizens and subjects, as regards their equal and common benefit in the conservation of food fishes in the territorial and contiguous waters of the United States, and Her Britannic Majesty's possessions in North America, it seems most desirable for the two parties to avail themselves in common, so far as may be practicable, of the means already at hand, in order that the end in view may be the more speedily attained. That this may be conveniently accomplished, I have the honour to propose for the consideration of Her Britannic Majesty's Government the following bases for an arrangement to be reached by a diplomatic exchange of notes.

I. The Governments of the United States of America and of Her Majesty the Queen of the United Kingdom of Great Britain and Ireland agree that a commission of two experts shall be appointed, one on behalf of each government, to consider and report to their respective governments, either jointly or severally, or jointly to both governments, with regard to matters in which they may be in accord and severally to their respective governments with regard to matters of non-concurrence concerning the regulations, practice, and restrictions proper to be adopted in concert on the following subjects, viz:—

(a.) The limitation or prevention of exhaustive or destructive methods of taking fish and shell-fish in the territorial, and contiguous waters of the United States and Her Majesty's possessions in North America respectively, and also in the waters of the open seas outside the territorial limits of either country to which the inhabitants of the respective countries may habitually resort for the purpose of such fishing.

(b.) The prevention of the polluting or obstructing of such contiguous waters to the detriment of the fisheries or of navigation.

(c.) The close seasons expedient to be enforced and observed in such contiguous waters by the inhabitants of both countries as respects the taking of the several kinds of fish and shell-fish.

(d.) The adoption of practical methods of re-stocking and replenishing such contiguous and territorial waters with fish and shell-fish, and the means by which such fish life may be therein preserved and increased.

II. The commissioners to be so appointed shall meet at the city of Washington within three months from the date of this present agreement, and shall complete their investigation, and submit their final reports thereof, to the two governments as herein provided, within two years from the date of their first meeting.

III. The contracting governments agree to place at the service of the said commissioners all information and material pertinent to the subjects of their investigation which may be of record respectively in the offices of the United States Commission of Fish and Fisheries, and in the Department of Marine and Fisheries of the Dominion of Canada; and further to place at the disposal of the said commissioners acting jointly any vessel or vessels of either of said Fish Commissions of the United States and of Canada as may be convenient and proper, to aid in the prosecution of their investigation in the contiguous or adjacent waters aforesaid.

It is further agreed that, if required by either or both of the said commissioners, a competent employee of either or both of the said fish commissions of the United States and of Canada shall be detailed to assist the said commissioners in the preparation of their reports.

IV. Each government will defray the expenses of its commissioner, and of such employee as may be detailed to assist him as provided in the preceding section.

V. The two governments agree that so soon as the reports of the commissioners shall be laid before them as aforesaid, they will consider the same and exchange views thereon, to the end of reaching, if expedient and practicable, such conventional or other understanding as may suffice to carry out the recommendations of the commissioners, by treaty or concurrent legislation on the part of the respective governments or the legislatures of the several states and provinces, or both as may be found most advisable; but nothing herein contained shall be deemed to commit either government to the results of the investigation hereby instituted.

I beg that you will submit the foregoing draft of agreement to Her Britannic Majesty's Government for consideration, with the intimation that if it be accepted, this government will be prepared forthwith for its part, to give full force and effect from the date when such acceptance may be notified to it.

I have, &c.,

(Sgd.) JOHN W. FOSTER.

The Honourable MICHAEL H. HERBERT,
&c., &c., &c.

Mr. Herbert to Lord Stanley of Preston.

WASHINGTON, 6th October, 1892.

MY LORD,—With reference to my despatch, No. 79, of the 13th ultimo, I have the honour to inclose copy of a note which I have received from Mr. Foster, submitting the draft of an agreement which he suggests should be effected by an exchange of notes in regard to the preservation of the fisheries in waters contiguous to Canada and the United States.

Mr. Foster told me a few days ago that he thought, for the reasons which he has repeated in his note, that a convention was unnecessary at the present moment, and that his proposal as to the form of the agreement to be reached would be simpler and more expeditious.

I have, &c.,

(Sd.) MICHAEL H. HERBERT.

His Excellency
Lord STANLEY OF PRESTON, C.C.B.,
&c., &c., &c.

On receipt of the above the following report of a Committee of the Honourable the Privy Council, was approved by his Excellency the Governor General in Council, on the 31st October, 1892:—

The Committee of the Privy Council have had under consideration a despatch, hereto attached, dated 6th October, 1892, from Her Majesty's Representative at Washington, covering a communication from the United States Secretary of State, dated 4th October, 1892, to Mr. Herbert, resulting from several conferences on the subject of giving effect to so much of the understanding reached by the United

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States Secretary of State, and the delegates from the Government of Canada on the 15th February last, as relates to prevention of destructive methods of fishing in the contiguous waters of the United States and Canada and in other waters, and the preservation of the fisheries thereof, and with the object of reaching a formal agreement the Secretary of State submits the views of his Government.

The Minister of Marine and Fisheries to whom the question was referred observes that the proposition of 15th February, 1892, is referred to as the appointment of a commission of two experts, one by each Government, to consider and report, either jointly or severally, as to the restrictions and regulations on the following subjects, namely :

1st. "The prevention of destructive methods of fishing in the territorial and contiguous waters of the United States and Canada respectively, and also in waters outside the territorial limits of either country.

2nd. "The prevention of the polluting and obstruction of such contiguous waters to the detriment of fisheries and navigation.

3rd. "The close seasons which should be enforced and observed in such waters by the inhabitants of both countries ; and

4th. "On the subject of re-stocking and replenishing such contiguous waters with fish ova and the means by which fish life may be therein preserved and increased.

He, therefore, proposed certain bases for an agreement to be reached by a diplomatic exchange of notes:—

I. The Government of the United States of America and of Her Majesty the Queen of the United Kingdom of Great Britain and Ireland agree that a commission of two experts shall be appointed, one on behalf of each Government, to consider and report to their respective Governments, either jointly or severally, or jointly to both Governments, with regard to matters in which they may be in accord, and severally to their respective Governments with regard to matters of non-concurrence concerning the regulations, practice and restrictions proper to be in concert, on the following subjects:—

(a) "The limitation or prevention of exhaustive or destructive methods of taking fish and shell-fish in the territorial and contiguous waters of the United States and Her Majesty's possessions in North America respectively, and also in the waters of the open seas outside the territorial limits of either country to which the inhabitants of the respective countries may habitually resort for the purpose such fishing.

(b) "The prevention of the polluting or obstructing of such contiguous waters to the detriment of the fisheries or of navigation.

(c) "The close seasons expedient to be enforced and observed in such contiguous waters by the inhabitants of both countries, as respects the taking of the several kinds of fish and shell-fish.

(d) "The adoption of practical methods of re-stocking and replenishing such contiguous and territorial waters with fish and shell-fish, and the means by which such fish life may be therein preserved and increased.

II. The commissioners to be appointed shall meet in the city of Washington within three months from the date of this present agreement and shall complete their investigations, and submit their final reports thereof, to the two Governments as herein provided within two years from the date of their first meeting.

III. The contracting Governments agree to place at the service of the said commissioners all information and material pertinent to the subject of their investigations which may be of record respectively in the offices of the United States Commission of Fish and Fisheries and in the Department of Marine and Fisheries of the Dominion of Canada, and further to place at the disposal of said commissioners acting jointly any vessel or vessels of either of said Fish Commission of the United States and of Canada as may be convenient and proper, to aid in the prosecution of their investigation in the contiguous or adjacent waters aforesaid.

It is further agreed that if required by either or both of the said commissioners, a competent employee of either or both of the said Fish Commissions of the United States and of Canada shall be detailed to assist the said commissioners in the preparation of their reports.

IV. Each government shall defray the expenses of its commissioner and of such employee as may be detailed to assist him as provided in the preceding section.

V. "The two governments agree that so soon as the reports of the commissioners shall be laid before them as aforesaid, they will consider the same and exchange views thereon, to the end of reaching, if expedient and practicable, such conventional or other understanding as may suffice to carry out the recommendations of the commissioners by Treaty or concurrent legislation on the part of the respective governments or the Legislature of the several states and provinces, or both as may be found most advisable, but nothing herein shall be deemed to commit either Government to the results of the investigation hereby instituted.

The Minister of Marine and Fisheries reports that although the information at the command of the Canadian Government may not be so complete as that connected with the long established Fish Commission of the United States, important material has been collected by the Department of Marine and Fisheries, and that conferences between the experts proposed to investigate and deal with the subjects will no doubt lead to a full possession of the main facts connected with the fisheries in which the two countries are so much interested.

The Minister therefore, reports to Your Excellency that the terms of the draft agreement as submitted by the Secretary of State for the United States are acceptable.

The Committee advise that Your Excellency be moved to transmit a copy of this minute to Her Majesty's representative at Washington for his information.

All of which is respectfully submitted for Your Excellency's approval.

(Signed.) JOHN J. MCGEE,
Clerk of the Privy Council.

A reply based on the above having been communicated to the Secretary of State for the United States, was acknowledged as follows:—

DEPARTMENT OF STATE, WASHINGTON,
6th December, 1892.

SIR,—I have the honour to acknowledge the receipt to-day of your note of the 5th instant, by which you inform me that the Canadian Government has accepted the draft agreement for the preservation of the fisheries in the waters contiguous to Canada and the United States, as proposed in my note to Mr. Herbert, October 4th, last.

This reply consequently completes the agreement by exchange of notes as proposed by the communication of the 4th of October last, and fixes this day as the date of the agreement.

I have much pleasure in giving immediate effect to this agreement so far as depends upon the executive power, by informing you that the President has appointed as the representative expert of the United States for the purposes of the stipulated joint investigation Mr. Richard Rathbun, of the United States Fish Commission. I beg that you will advise me of the name of the expert to be appointed on behalf of Her Majesty's Government, in order that Mr. Rathbun may be instructed to confer with his Canadian colleague as to the time of meeting and plan of operations.

I have, &c.,
(Sgd.) JOHN W. FOSTER.

Sir JULIAN PAUNCEFOTE, G.C.B.

Sir Julian Pauncefote to Lord Stanley of Preston.

WASHINGTON, 14th December, 1892.

MY LORD,—With reference to Your Excellency's despatch, No. 70, of the 8th ultimo, I have the honour to inclose copy of a note which I have received from Mr. Foster, in which he states that the acceptance by the Canadian Government of

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the proposal for the preservation of the fisheries in the waters contiguous to Canada and the United States, completes the agreement by exchange of notes, and that Mr. Richard Rathbun has been appointed the representative of the United States for the purposes of the stipulated joint investigation.

Mr. Foster adds, as Your Excellency will observe, that he will be glad to learn the name of the expert appointed on behalf of Her Majesty's Government.

I have, &c.,
(Sgd.) JULIAN PAUNCEFOTE.

His Excellency
LORD STANLEY OF PRESTON, G.C.B.

On receipt of the above the following report to Council was approved :

Certified copy of a Report of a Committee of the Honourable the Privy Council, approved by His Excellency the Governor General in Council, on the 13th January, 1893.

The Committee of the Privy Council have had under consideration a despatch hereto annexed, dated 14th December, 1892, from Her Majesty's Minister at Washington, intimating that the acceptance by the Canadian Government of the proposal for the preservation of the fisheries in waters contiguous to Canada and the United States, completes the agreement by exchange of notes, and announces that Mr. Richard Rathbun of the United States Fish Commission, had been appointed as the representative expert of the United States, for the purpose of the stipulated joint investigation, and asking that he be advised of the name of the expert to be appointed on behalf of Her Majesty's Government.

The Minister of Marine and Fisheries, to whom the despatch was referred, observes that clause I of the bases of agreement provides that the governments of the United States of America and of Her Majesty the Queen of the Kingdom of Great Britain and Ireland, should agree upon the appointment of a commission of two experts, one on behalf of the respective governments.

The Minister recommends that Mr. William Wakeham, M.D., acting officer in charge of the Fisheries Protection service and Inspector for the Gulf division of Canadian Fisheries, be appointed as the representative expert of Her Britannic Majesty's Government, for the purposes of the investigation.

The Committee advise that Your Excellency be moved to forward a copy of this minute, if approved, to the Right Honourable the Secretary of State for the Colonies, for the consideration of Her Majesty's Government.

All of which is respectfully submitted for Your Excellency's approval.

JOHN J. MCGEE,
Clerk of the Privy Council.

The agreement having therefore been perfected by exchange of notes, and the two experts named—these gentlemen met at Washington on the 2nd March, 1893, and arranged their plan of operations. The inquiry began on the Atlantic coast, on 1st June and continued without interruption from Passamaquoddy Bay along the waters of the River St. Croix and St. John, by way of Lake Memphremagog and the River St. Lawrence, along the north shores of Lakes Ontario and Erie to Detroit, when the inquiries on the lakes were closed for the season on the 14th of October.

The commissioners met again at Gloucester, Mass., on the 14th November to continue their inquiry into the question of the movements of the mackerel, and the manner of conducting that fishery.

I trust that as a result of this inquiry joint action may be taken by the Governments of the United States and Canada on the various points submitted to the experts for consideration, with a view to the preservation and increase of the fisheries in waters contiguous to the two countries.

EXTRACTS FROM THE STATE LAWS OF THE UNITED STATES IN
WATERS CONTIGUOUS TO CANADA.

NEW YORK STATE.

Chap. 488. An Act for the protection, preservation and propagation of birds, fish and wild animals in the State of New York and the different counties thereof. Approved by the Governor, May 5, 1892.

Par. 131. No fish shall be fished for, caught or killed in any manner, or by any device except angling, in the waters of the St. Lawrence River, Niagara River or Lake Champlain, in this state, nor shall fish taken contrary to the provisions of this section be knowingly possessed.

Par. 132. No fish shall be fished for, caught or killed in any manner, or by any device except angling in the waters of Lake Erie, within one-half mile of the shores thereof, nor of any of the islands therein, or in the Cattaraugus creek or within five miles of the mouth thereof; nor in Lake Ontario within one mile of the shore nor of any islands therein, (the waters of Lake Ontario, in the county of Jefferson, included between Blue Rock Point in the town of Brownville, and the town lines between towns of Lyme and Cape Vincent, including Chaumont Bay, Griffin Bay and Three Mile Bay, are hereby exempt from the provisions of this Act, but sections one hundred and ten, one hundred and eleven and one hundred and sixty-eight of this Act, shall apply to said waters.) Nor shall fish taken contrary to the provisions of this section be knowingly possessed.

The meshes of nets used in Lakes Erie and Ontario, shall not be less than one and one-eighth inch bar. Par. 148. Penalties :

An attempt to violate the provisions of this article shall be deemed a violation thereof. A violation of any of its provisions shall be a misdemeanour, and in addition the violators of sections one hundred and thirty-one, one hundred and thirty-two, one hundred and thirty-four, one hundred and thirty-five, one hundred and thirty-six, and one hundred and thirty-eight and one hundred and forty, are liable to a penalty of one hundred dollars for each violation; the violators of section one hundred and thirty to a penalty of five hundred dollars for each violation; the violators of sections one hundred and thirty-seven, one hundred and forty-four, one hundred and forty-six and one hundred and fifty to a penalty of twenty-five dollars for each violation, and ten dollars for each fish so caught; the violator of section one hundred and forty-seven to a penalty of fifty dollars for each violation.

STATE OF OHIO.

Fish, Nets, Shooting, Spears, etc., Black Bass.—Sec. 6968 (as amended 1890.) No person shall draw, set, place, locate or maintain, any pound-net, seine, trap, or fish-net, in Lake Erie, nor (in) Sandusky Bay, nor in Maumee Bay as far up as Maumee Bridge, nor in Portage Bay, as far up as Oak Harbour Bridge, from the fifteenth day of June to the tenth day of September inclusive. No person shall set, place, locate, or maintain, or catch fish, with a gill-net in any of the waters of the State, except in Lake Erie. No person shall set, place, locate, or maintain any fish-net on any of the reefs in Lake Erie. No person shall set, place, locate, or maintain in Lake Erie any portable fish-net within five hundred feet of any stationary fish net or lead thereof. No person shall set, place, locate or maintain, any net whatever within one-half mile of the mouth of any river or creek flowing into Lake Erie. No person shall catch fish in Mercer County reservoir between the twentieth day of May and the twentieth day of July inclusive; or on the Licking or Lewiston reservoirs between the first day of June and the first day of October, inclusive, with any device except hook and line with bait or lure. No person shall, in any of the waters, either natural or artificial, lying in the state of Ohio or part therein, shoot or spear fish. No person shall draw, set, place, locate or maintain, or catch fish with a device called a trammel-net or with fyke-net or set-net, except as heretofore stated. No person shall in any of the waters of the State, except those heretofore named in this section, catch fish with any device whatever, except hook and line with bait or lure.

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Close Seasons. Sec. 6968a (1.)—Whoever in the waters of any brook, creek, river, pond, reservoir, mill-race, tail-race, or in any body of water, natural or artificial, lying in the state of Ohio, during the spawning season of brook trout, or salmon or land-locked salmon, or California salmon, which season is hereby defined to extend from the fifteenth day of September in each year, to the fourteenth day of March inclusive, in the year following, shall catch in any manner with intent to kill, or offer for sale any brook trout, salmon, land locked salmon or California salmon, shall be punished by the same penalties fixed in section sixty-nine hundred and sixty-eight for the misdemeanours therein defined.

STATE OF WISCONSIN.

Whitefish.—Chap. 520 laws 1887 (abridged,) sec. 1. It shall hereafter be unlawful for any dealer or other person to buy, or for any one to sell, or offer to sell, or for any one to have in his possession, in this state, or for any one to ship out of this state, any whitefish less than a pound and a half, round or undressed weight, or one pound dressed weight; provided, however, that any one engaged in fishing as a business may be permitted to have in their possession only such amount of whitefish of less than one and a half pounds in weight, as the warden in his judgment may think unavoidable; provided, further, that such amount shall under no circumstances exceed fifty pounds.

Sec. 2 (as amended April 16, 1889.) It shall be unlawful after the passage of this Act, for any person, for himself or another, to set in the waters of Chequamegon Bay south of an east and west line drawn at the lighthouse in said bay, known as the Chequamegon lighthouse, any pound, gill, or trap-net, for a term of five years. It shall be unlawful for any person, for himself or another, to set or cause to be set in the waters of Lake Superior, on or near the main shore thereof, from the mouth of the Montreal River to the mouth of the St. Louis River, any pound-net for a term of five years from and after April 1st, A.D. 1889.

Chap. 482 Laws 1889 (abridged). Sec. 1. Every person fishing for himself or for another, as an employee, shall, while fishing in any of the waters of Lake Michigan, Lake Superior, Chequamegon Bay, Green Bay and Sturgeon Bay, from the twentieth day of October to the first day of November, in any year, take the eggs from the female trout while alive, and the milt from the male trout when alive, and after mixing them together in a pail or pan, immediately cast them into the water where such fish are taken. And it is likewise made their duty to pursue the same course as to whitefish, from the first to the twenty-fifth day of November in each year. (Violation a misdemeanour, penalty \$10 to \$25 for first offense; \$25 to \$50 for subsequent offenses. Sec. 2. District Attorney must prosecute.

STATE OF MICHIGAN.

Sec. 2.—No person shall use any pound, trap, stake, gill or set-net or like device of any kind for taking fish in any of the waters of this state connecting lakes Huron and Erie, nor fish with any seine or sweep-net, beneath the ice which may be formed or frozen upon the surface of said water, between a radius of two miles from the outlet of Lake Huron and the mouth of the Detroit River; provided it may be lawful with pound-nets in that portion of Lake St. Clair, between a line drawn across said lake easterly; two miles northerly of Windmill Point Lighthouse, and a line drawn easterly across said lake from the mouth of Milk River, as laid down on the chart of Lake St. Clair made by the United States Engineer Corps on the survey of the Northern and North-western Lakes.

Sec. 6.—It shall not be lawful for any person to catch or take whitefish between the twentieth day of November and the first day of March succeeding, in each year in any of the said waters of Lake Erie or Detroit and St. Clair Rivers; and immediately after said twentieth day of November, all nets, piles, stakes, and other appliances of every kind which have been used in the business of fishing, shall

be carried or caused to be carried to the shore, or inside the channel bank, by the person or persons who have used them and they shall also cause the ground beneath the waters where such fishing has been carried on to be cleared so far as may be reasonable to be done, from all debris and material found thereon, which has resulted from said business.

STATE OF WASHINGTON.

Salmon in the Columbia.—Act Feb. 11, 1890, Sec. 1.

It shall not be lawful to take or fish for salmon in the Columbia River or its tributaries by any means, in any year hereafter, between the first day of March and the tenth day of April, or between the tenth day of August and the tenth day of September; and also, during the weekly close season time, that is to say, between the hours of six o'clock p.m. on each and every Saturday and six o'clock in the afternoon of the following Sunday; and any person or persons fishing for or catching salmon in violation of this section by catching salmon, or purchasing salmon unlawfully caught or having in his or their possession any such unlawfully caught salmon, shall be deemed guilty of a misdemeanour, and upon conviction thereof be fined in a sum not less than fifty dollars nor more than two hundred and fifty dollars.

Salmon in Puget Sound.—Sec. 4.—It shall not be lawful for any person or persons to take or fish for salmon during the months of March, April and May of each year, on the waters of Puget Sound. Any person violating the provisions of this section shall be deemed guilty of a misdemeanour, and upon conviction thereof be fined in a sum not less than fifty dollars, nor more than two hundred and fifty dollars. Sec. 5. For the purpose of more clearly defining the provisions of Section 4 of this Act, all that portion of the tide waters emptying into the Straits of Fuca, and the bays, inlets, streams and estuaries thereof, shall be known and designated in this Act as Puget Sound.

STATE OF PENNSYLVANIA.

Sec. 5.—No person shall by any means or device whatsoever catch or kill any black bass, rock bass or wall-eyed pike, commonly known as Susquehanna salmon, between the first day of January and the thirteenth day of May in any year, nor shall catch or kill any of said species of fish at any other time during the year, save with a rod, hook and line. Any violation of this section shall subject the offender to a penalty of ten dollars for each fish so caught; provided that neither this nor any of the preceding sections of this Act shall apply to fishing in the waters of Lake Erie.

Act of May 22, 1889, Sec. 1.—Be it enacted, etc. That from and after the passage of this act, it shall not be lawful for any person or persons to place any set-net or set-nets, fish-baskets, pound-nets, gill-nets, eel-weirs, kiddles, brush, or fascine-nets, fike-nets, or any other net or nets of whatever description or nature, or any other permanently set means of taking fish or otherwise, in the nature of seines, in any of the waters of Lake Erie, within the jurisdiction of this Commonwealth, within two miles from the entrance from any bay, or within one-half mile from the mouths of any streams, commonly known as and called creeks, flowing into said lake; nor shall any person make use of any device or appliance whatever for the purpose of taking, catching or killing fish within the above mentioned limits, or in the creeks flowing into said lake, save only with rod, hook and line. Any person violating the provisions of this section shall, upon conviction thereof, be liable to a penalty not exceeding one hundred dollars for each and every offence.

STATE OF VERMONT.

Lake Champlain, Possession, Search. Sec. 3880.—All pound-net, trap-net set-net and fike fishing, or any other device for entrapping or ensnaring fish, in the

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waters of Lake Champlain, or the tributaries thereof, are hereby prohibited; and any person or persons who shall fish in said water with any such pound-nets, trap-nets, gill-nets, set-nets, fikes or any other device for ensnaring or entrapping fish, shall pay to the state a fine of one hundred dollars and the cost of prosecution. Any person discovering any such net or nets or devices for ensnaring fish, set or being used in the waters hereinbefore described, or on the shores thereof, contrary to the provisions of chapter 170 of the Revised Laws (which is this compilation) or any amendment thereof, may seize and destroy the same; provided, however, that seine fishing shall be allowed during the months of October and November in each year, and fishing with hook and line between the first day of June and the first day of February next after, and nothing contained in this section shall prohibit the capture of minnows for bait. Any person who takes or catches any black bass, pike, wall-eyed pike, shad or pond pickerel, from any of the waters, public or private, of this state, or from the waters of Lake Champlain, or has any of said fish in his possession, between the first day of February and the first day of June in any year shall pay to the state a fine of five dollars for each fish so caught taken or possessed, with cost of prosecution.

STATE OF MAINE.

Sec. 242.—From the 15th day of July to the 1st day of April following, there shall be a close time for salmon during which no salmon shall be taken or killed in any manner, under a penalty of not more than \$50 or less than \$10, and a further penalty of \$10 for each salmon so taken or killed; provided, however, that between the 15th days of July and September it is lawful to fish for and take salmon by the ordinary mode, with rod and single line, but not otherwise.

Sec. 52.—Whoever fishes for, takes, catches, kills or destroys any fish, except in tide waters, with net, seine, weir or trap, forfeits \$25 for the offence, and \$10 for each salmon or land-locked salmon, and \$1 for each and every other fish so caught, taken, killed or destroyed.

Sec. 53.—Whoever kills or destroys any sea-salmon, or land-locked salmon less than 9 inches in length, or any trout less than 5 inches in length, forfeits \$5 for each offence and 50 cents for every land-locked salmon or trout so killed or destroyed. Whoever has in possession any salmon or trout of less than the above dimensions shall be deemed to have taken them in violation of this section.

Sec. 54.—No person shall take, catch, kill, or have in possession at any one time for the purpose of transportation, more than fifty pounds of land-locked salmon trout or togue, in all, nor shall any such be transported except in the possession of the owner thereof, under a penalty of \$50 for the offence, and \$5 for every pound of land-locked salmon, trout or togue, in all, so taken, caught, killed, in possession, or transportation, in excess of fifty pounds, all such fish transported in violation of this section, may be seized on complaint, and shall be forfeited to the prosecutor. Whoever has in possession more than fifty pounds in all of such fish, shall be deemed to have taken them in violation of this section.

POUND-NETS, GILL-NETS AND SEINES.

INLAND FISHERIES.

Under the Act of 1858 (22 Vic., c. 86, s. 37) which was re-enacted in Consolidated Stat. Can. Cap. 62 S. 33, it was enacted as follows:—"No one shall construct any fish pound in any river" By the Acts of the Province of Canada of 1865 (29 Vic. cap. 11, s. 17, ss. 7) it was enacted as follows:—

"7. Bag-nets and trap-nets and fish-pounds are prohibited except for capturing deep-sea fishes, other than salmon. * * * *

After Confederation, by the Fisheries Act of 1868, the law was made the same as it is at present under Revised Stat. Can. chap. 95, s. 14, ss. 7. No one shall use a bag-net, trap-net or fish-pound except under a special license granted for capturing deep-sea fish other than salmon."

It is regrettable that in every country it is chiefly when fish become scarce or have nearly disappeared that public support is more ready given to efforts intended to moderate the destructive character of fishing engines.

The aims of the fishery regulations respecting fishing nets are :

1. To prevent their use when constructed in the form of traps or contrivances by means of which the fish would be taken in such quantities that the fishery soon becomes exhausted.

2. The limitation of the size of meshes, so that fish which have never reproduced their species and are immature may escape.

3. The prohibition of netting and fishing at a time when the fish are engaged in reproduction or are in a spawning condition.

The decrease of our inland fisheries is painfully evident. It is shown in the reports of fishery officers, of royal commissioners, and by the notorious diminution in size of the fish taken.

In many districts it is therefore truthfully said that the enforcement of fishery regulations is equivalent to the prohibition of fishing for a time.

In many of the inland waters it is yet possible to save the fisheries and to preserve them as an annual source of benefit and profit to the country.

An industry that is worth to Canada, as it stands, from eighteen to nineteen millions of dollars a year demands attention.

It will be impossible to preserve this great property, so far as the inland fisheries are concerned at least, unless fishery officers and the Department of Marine and Fisheries receive greater co-operation from the public in the future than has been the case in the past.

Almost every attempt either to promulgate necessary fishery regulations, or to reform them, meets with opposition from not only many fishermen, but others in fishing communities.

Many of the fishermen are poor in all fishing districts, they are poorer where the fisheries have diminished, and this fact has made it an issue between the man and the fish. A decision has been promptly and materially given in favour apparently of the man. This verdict, however, means the ruin of many in the end.

In the United States of America a mistaken philanthropy of this kind has brought most of the inland fisheries of that country to an end, and the fishermen have taken up other work.

While a commission of inquiry into the fisheries of Ontario is outstanding, a review of some of the information touching pound-nets, gill-nets and seines now in the hands of the department may be of value and interest to the public.

The history of the first introduction of the pound-nets into the inland lakes of Canada, was sometime about the year 1860.

Their introduction into Lake Ontario was by a fisherman using them to catch salmon, between Brighton and Toronto, along the shores of the lake, where salmon were found in great numbers from June till October, principally at the outlets of all rivers and other streams.

A conflict arose between the fishermen using seines, gill-nets, spears, &c., and those using the pound-nets. Petitions were got up by the former class, which very largely outnumbered the latter to do away with the pound-nets; and the legislature of that day passed the Act prohibiting the use of pound or trap-nets.

How this Act became over-ridden does not appear, it was probably by pressure brought to bear from time to time upon the department by interested parties, the result of which has been that the waters are filled with these nets.

A license has always been given for a pound-net without restrictions of any kind, in fact, the fishermen had a "carte blanche" for the use of these nets, the result has been that, by reason of the unrestricted use of small meshed pounds, the young and immature fish of all kinds have been mercilessly slaughtered, which has hastened the depletion of valuable species of fish in many of the waters of Canada.

The destructive features of pound-net fishing are impressed on the languishing fisheries of the lake states and the impoverished shores of the north-eastern Atlantic states of the American Union. It flourishes for a while everywhere, and having

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exhausted fishing in one locality, it is shifted to another. Fishing from morning till night and from night till morning, in season and out of season, and all through every season, for all kinds of sizes of fish, it abates not its ravages for any cause but exhaustion. This is substantially the account given of its working in the United States by the late Prof. Baird and the late Mr. Milner—two able officials of the Federal Government.

In Canada, out of consideration for the relative position of our fishermen living on the lakes where pound-nets are in common use by their American neighbours, and the unequal position in which they are placed, both as regards the time and modes of fishing, as compared with the unrestricted fishing carried on in the United States waters within their sight; and in which fishermen are permitted to take fish, at all times and by all means, their use had to be permitted under special regulations and subject to a heavy license fee.

Section 1, subsection 3 of the Fisheries Act, respecting gill-nets for catching salmon-trout or whitefish, provides that they shall have meshes of at least 5 inch extension measure.

Subsection 4 provides that *seines* for catching whitefish shall have meshes of not less than 4 inches extension measure.

Subsection 2 provides, that the *fry* of the whitefish shall not be at any time destroyed.

In 1890, Mr. C. Wilmot reported upon gill-net fishing.

Mr. Wilmot was an officer of ten years' experience in handling breeding fish, collecting fish-eggs, and observing the operation of pound and gill-nets.

Respecting gill-nets, he wrote:—

1. At the present time a great deal of dissatisfaction exists among wholesale dealers and their customers, owing to the fish not being in a sound condition for food, especially when arriving at destinations long distances from the fishing grounds. The cause of this, in my opinion, is largely due to the use of the gill-net. The present system of operating the gill-net by the ordinary run of fishermen is to have from two to four gangs set in different localities; these are lifted alternately, usually remaining in the water from three to four days, but in case of rough weather the fishermen cannot reach them, and the fish are not removed for a much longer period. The result is that a large proportion of the fish, when taken from the net, are in a somewhat decomposed state, and it stands to reason that their condition will not be improved by the time they arrive at the important fish markets, such as Toronto and Buffalo, to be sold to the retail dealers of Canada and the United States, after having been kept for a week or more. It is well known that a large percentage of the fish taken by the gill-nets are unfit to be shipped fresh.

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* * * * *

I am of the opinion that the gill-net is much more destructive than the pound-net, and its use as at present practised must eventually exterminate the salmon-trout and whitefish.

2. During the close time of thirty days in November, the salmon-trout and whitefish frequent the shallow waters, where gravelly bottoms are to be found, for the purpose of spawning; here they are more easily caught than in the deeper waters in the open season. The construction of the gill-net is specially adapted for the destruction of the parent fish in these localities; it can be used illegally by fishermen, without even a buoy to mark its location. It is therefore impossible for the most energetic fishery officers, having as they do districts under their charge extending over limits a hundred miles or more, to enforce the law. It is at this season of the year that so much harm is done to the fisheries by these illegal fishermen, who fish in a wholesale manner, and either salt the fish, or sell them to other parties having facilities for freezing

them, and then after the close time is passed, they are disposed of as marketable fish which were captured in the open season. And he recommended :

3. The large amount of money invested in gill-net fishing by virtue of the numerous licenses which are granted from year to year, renders it almost impossible to adopt immediate steps to abolish this system, even if the department felt inclined; but in my opinion the number of licenses should be gradually reduced, and, finally, none granted for gill-net fishing later in the fall than 15th October, as this is the time of the year when the salmon-trout and whitefish leave their feeding grounds, and seek their breeding grounds for spawning purposes.

Mr. C. Wilmot in 1891 again reported as follows:—

App. No. 6,
Fisheries
Report, 1890.

1. In the vicinity of Goderich, Kincardine, Southampton and other important localities where gill-net licenses were extensively granted in past years, the fish are almost exterminated, and the large capital invested in fishing enterprises at these points has been withdrawn, to be utilized in new fields of operation.

By means of the gill-net, fishing is carried on in a very extensive way; and to give an idea of its magnitude I may cite the case of the Georgian Bay, where parties holding tug and fishing boat licenses, the Indians and persons fishing without the lawful right to do so, have yearly upwards of 1,000 miles of gill-nets in use, or almost enough net set to encircle those waters twice. Even if the nets were set, as above described, they would not be nearly so injurious as when placed upon the feeding and spawning grounds of the fish in every possible shape and form; and to make matters still worse, large numbers of these nets are cast adrift from their buoys by storms never to be found again by the owners, but their construction is such that portions of them continue gilling and destroying the fish, and polluting the waters for many months after they have been lost. This, in my opinion, is one of the great evils of this system, and requires the most careful consideration upon the part of the Fisheries Department, in order to have it properly remedied.

At a Conference of Fishery Inspectors held at Ottawa, 9th April, 1891, the following views were expressed :

1f. POUND-NET VS. GILL-NET FISHING.

Report of the Fresh-Water Fish Committee.

Fisheries
Report, 1891,
lix.

“Your committee, after listening carefully to the reading of Mr. Charles Wilmot’s report upon the question of pound-net vs. gill-net fishing (see p. 85, Fisheries Report, 1890); from personal experience in the matter, and after a full discussion upon the relative merits of these appliances, recommend as follows:—

(1.) “That a pound-net of proper dimensions—say 4 inch mesh for the pot, 6 inches for the leader—is not so destructive as the present system of operating gill-nets.

(2.) “The pound-net is a stationary engine, whereas the gill-net can easily be removed from feeding to spawning grounds, and by this means seriously interfere with natural propagation. The fish when taken from the pound-net are alive and in first-class condition, whereas with the gill-net they are often from necessity left in the water too long and thus become unfit for use.

“The gill-net captures large numbers of immature salmon trout by the teeth; but the pound allows them to pass through uninjured.

“The gill-net allows suckers and mullets to pass through the mesh, whereas large numbers of these inferior fish are caught by the pound-nets.”

NOTE.—Suckers and mullet live largely upon the eggs and fry of whitefish and salmon-trout.

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Recommendations.

(a.) Your committee would recommend that a limited number of pound-net licenses be granted to the fishermen of the province of Ontario. The mesh not to be less than 4 inches extension measure in the pot, pound, hearts or tunnel, and 6 inches in the leaders.

(b.) For Manitoba and the North-west Territories, where the adult and marketable fish are larger, the mesh for pot, pound, heart, or tunnel should not be less than 4½ inches and 7 inches for the leader.

(c.) That the number of licenses issued, and the localities where the nets are to be placed be left to the discretion of the inspectors of the respective districts:

(d.) That pound-nets be not placed nearer than a mile from each other, that the length of leaders for each net be fixed by the inspector, and that no double-headed pound-nets be allowed.

(e.) That gill-net fishermen operating in the province of Ontario from 3,000 to 6,000 yards of net shall pay an annual fee of \$10, and for a less quantity a fee of \$5, and that the license for fishing tugs remain as at present, viz., \$25.

(f.) That the fee on a boat license in the province of Manitoba and the North-west Territories (the limit to be placed at 6,000 yards) shall be \$10. The fee on licenses for fishermen using 400 yards or less of nets to be \$2 per annum, and for each additional \$400 yards \$2 more.

(g.) That Indians (fishermen) in Manitoba and the North-west Territories shall have no privileges over and above those granted to white-men, when fishing for market.

(h.) The committee also recommends that a system of registering fishing nets, buoys, and boats be adopted, and that the Department of Fisheries issue tags or checks to the inspectors for that purpose. That no fisherman fishing with gill-nets in Ontario, Manitoba and the North-west Territories, be granted a license to use pound-nets. He must restrict himself to either of these methods for capturing salmon-trout and whitefish.

Mr. Dunning, President of the Wisconsin Fish Commission, writing to Mr. F. J. Amsden, Secretary, &c., Rochester, N.Y., from Madison, Wis., November 2nd, 1891, said, in reply to the following question:—

Ontario Game and Fish Commission, 1892, page 239.

2nd. "What kind of nets should be permitted—pound or gill? The laws of Wisconsin, and a change in which I see no reason at this moment, are as follows:—

"Section 1. It shall be unlawful after the passage of this Act, for any person, for himself or for others, to set, in the waters of Lake Superior or any bays thereof being within the boundaries of this state, any trap, fike, float, net or seine whose mesh is less than three and one-half inches stretch measure, or one and three-quarters inches bar measure, or any pound-net, the back and two opposite sides of the pot hereof whose mesh is less than three and one-half inches stretch measure, or one and three-quarter inches bar measure."

A. D. Stewart, Secretary of the Ontario Game and Fish Commission 1892, said:—

Ontario Game and Fish Commission, 1892, page 242.

"Our Commissioners very strongly pronounce against the pound-net. The destruction of fish, gentlemen, in the waters of Ontario is something enormous, and I tell you that thousands and thousands of tons of good fish and good spawn have been allowed to rot along our shores. We think that the pound-nets are a source of great destruction, and we are endeavouring, so far as possible, to put a stop to them."

At a meeting of the International Fish Committee held in Rochester, November 10th, 1891, at the rooms of the Chamber of Commerce, the following was reported:—

* * * * *

Ontario Game and Fish Commission, 1892, page 253.

CHAIRMAN.—The Chair would like to ask of Mr. Green something in regard to the proper size of mesh for nets in the lakes. You have been a practical fisherman?

Mr. GREEN.—I have.

CHAIRMAN.—What is your idea of a proper size of mesh for nets—pound-nets and gill-nets in the lakes?

Mr. GREEN.—I do not think that in gill-nets a smaller mesh should be used than 2½-inch bar.

CHAIRMAN.—Two and one-half bar, that makes a 5-inch.

Mr. GREEN.—Yes; the average size, then, is three pounds or over. The smaller fish go through. In regard to the pound-net, if you have a large mesh a great many fish would be killed. A pound-net will clean out any stream, I do not care where it is; if they took the pains to separate them, took out the small fish and put them back, which the fishermen will not do. I have seen boat loads taken in, and a third of them would not be marketable.

CHAIRMAN.—Which is most destructive to fishing, pound or gill-nets?

Mr. GREEN.—I think a pound-net is. If a gill-net is restricted to a proper sized mesh, the small ones will go through; and a pound-net takes from a six-inch up to a sturgeon.

Ontario Game and Fish Commission, 1892, page 260.

A proposed code was discussed:—It was section 132 of the Act for the protection and preservation of birds and game:

Lake Ontario, Lake Erie and Niagara River, fishing with nets within certain distances from shore prohibited. No fish shall be fished for, caught or killed in any manner or by any device except angling in the waters of Lake Erie, within one mile of the shores, or within one-half mile of the shore of any of the islands therein. Nor in Lake Ontario within one mile of the shore, or within one mile of the shore of any of the islands therein, except in the county of Oswego they may be taken one-half mile from shore. Nor shall fish taken contrary to the provisions of this section be knowingly possessed. *Pound-net fishing* in the waters of Lake Erie is hereby prohibited.

Ontario Game and Fish Commission, page 270.

The committee appointed by the conference of representatives from the respective commissions of Canada and the state of New York, to consider and recommend measures looking to the adoption of uniform laws for the protection, preservation and multiplication of the food fish supply of the international waters lying between these respective countries reported:—That the food fish supply of the great lakes has been for the past thirty years suffering rapid diminution, is too apparent to need statistical proof. On the New York side of Lake Ontario, where formerly salmon-trout, whitefish and even the lordly salt water salmon were so abundant as to furnish all the near markets with an abundant supply at prices within the reach of the means of the day labourer, the product now scarcely recompenses the netter, and these fish, once so abundant and cheap, are no longer available for food to the multitude, but have become table luxuries to be enjoyed only by people of ample means. On the Ohio side of Lake Erie, there has been a nearly equal falling off of the higher grades of fish, but there still remains, on account of the greater fecundity of the coarser kinds, a fair supply of what are commonly known as pickerel, blue pike, pike perch, and bass, which still afford a fair market stock at moderate cost. Yet so enormous has become the draught on the north shore and islands of Erie, that the cry of scarcity is already sounded from there.

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Page 271.

On the Canada side of these waters, the supply, though showing each year an additional falling off, yet holds goods for profitable netting, and it is from the fisheries of Canadian waters that the principal market supply for the state of New York comes.

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THE REMEDY.

Of the unnecessary causes of depletion, it is evident from observation and experience, that the practice of inshore netting is the greatest. The setting of pound-nets of small mesh with leads extending often a mile or more from shore, causes the capture of myriads of young fish scarcely fit for human food, but which, if left to develop on their natural feeding grounds would add immensely to keeping up the market supply; and the innumerable fikes, trap and hoop-nets, and other effective devices for the capture of coarse and immature fish which seek their food in the shallows and along the shores, is another of the leading causes of depletion. The use of small mesh gill-nets is also a source of material waste. The small fish taken in these nets are but of little value for food, and are a nuisance to the market men on whose hands they are thrown.

The remedy for the cure of the ills stated, is to prohibit the use of nets of any kind, within one mile of the shore line of the great lakes and the rivers connecting them and the St. Lawrence River, and to require that the mesh of all pound and gill-nets set outside this limit, shall be not less than three and one-half inches stretch, and as an effective aid to the enforcement of such a regulation, to make illegal the sale or possession of any fish of less than specified weights.

Mr. Nevin, Superintendent of Fisheries for State of Wisconsin, writes: Ontario Game and Fish Commission, page 275.

MADISON, WIS., Dec. 7, 1891.

To A. D. Stewart, Esq., Secretary Joint Convention, Hamilton, Ont. :

* * * *

"The greatest evil that exists to-day in the matter of replenishing the waters of the various lakes with whitefish is the pound-nets; for the simple reason that they catch both large and small. As long as the pound-nets are allowed to remain in the waters in their present form, there is no use in attempting to replenish the waters with whitefish."

* * * *

"You can regulate the matter by having a four and one-half inch mesh, so that all the small whitefish will pass through. If the fishermen had to depend for their living upon what whitefish they catch they would starve."

* * * *

From the Indian Agent at St. Peter's, Manitoba, written in 1891:—
"While the pound and trap-nets were allowed, the whole shore of the lake was strewn with dead fish; now, when their use is not allowed, no dead fish are to be seen; still some persons argue that this kind of net is not destructive."

On the destruction of immature fish, Inspector Elliott says:—

"The catching of small whitefish in pound-nets and seines is one of the greatest evils now existing. These nets being shore machines as it were, and as these small fish follow the shore in schools, large numbers of them are caught. At one station alone this season, 22 tons of these fish (classed as seconds) were handled, and buyers inform me there is no profit in them; but competition is now so keen in buying that fishermen say if you do not buy our small fish, you cannot have the large ones, and buyers are compelled to take them in order to hold their trade. The catching of those immature fish is greatly to be regretted. If fish are caught so young that they cannot spawn or reproduce their species it will soon exhaust the supply. There are very few pound-nets in my division that have meshes of the proper size, and even if they had it would not prevent the catching of those small fish, as fishermen have now too many devices to catch them even if the mesh were of the proper dimension."

A conference of United States, state, and Canadian Fish Commissioners was held at Detroit, in December, 1892.

(See Canadian Fishery Report, 1892.)

The following was the report of a sub-committee:—

"GENTLEMEN,—Your committee, to whom was referred the question, 'whether or not there should be a close season for whitefish, lake or salmon-trout and herring,' also what means should be taken for their protection, would report:

"1st. All small fish and those unfit for food of all kinds when taken in nets, should be replaced in the water where taken alive, and that fishermen should not be allowed to take such fish on shore, nor expose them for sale.

"2nd. That no string pound of nets used in the lakes shall extend more than four miles from shore.

"3rd. That one-half part of all channels between islands or elsewhere where fish migrate to spawn, shall be kept free from nets of all kinds at all seasons.

"4th. That all whitefish taken of less than sixteen inches in length, and all salmon-trout less than two pounds in weight shall be immediately returned to the waters where taken and shall not be exposed for sale. That all herring less than eight inches in length, and all wall-eyed pike less than twelve inches in length, shall be returned to the waters where taken and shall not be exposed for sale.

"5th. That the month of November in each year be made a close season in all the great lakes for whitefish, herring and salmon or lake trout.

"Your committee would further recommend that all penalties fixed for violations of any laws that shall be enacted shall be made not only to apply to those who take fish, but also to all persons who buy, sell, transport or have the same in possession.

"The 1st, 2nd, 3rd and 4th recommendations were unanimously adopted by your committee.

"The fifth recommendation, making the month of November in each year a close season for whitefish, salmon-trout and herring was adopted, all the members voting 'aye' except Mr. Keyes, from Ohio, who voted in the negative.

"Resolved,—That the law should authorize the seizure and destruction of nets used in violation of law."

Mr. AMSDEN.—Was any consideration taken of the size of mesh in gill-nets?

Mr. BOWMAN.—No, that was not considered. No recommendation was made to the committee in that regard at all.

Dr. SWEENEY.—I move its adoption.

Mr. GOULD.—I will second it.

The resolution as amended was then unanimously adopted.

On this 20th day of February, 1892, the following Order in Council was adopted:

Whereas pound-net fishing should be confined within as reasonable bounds as possible, and the mesh of this description of fishing apparatus should be fixed in such a manner as to allow the escape of young and immature fishes, and prevent the waste and destruction which are now going on,—

His Excellency, in virtue of the powers vested in him by "The Fisheries Act," chapter 95 of the Revised Statutes, and by and with the advice of the Queen's Privy Council for Canada, is pleased to make the following Fishery Regulations, which shall apply to all pound-net fishing in the fresh waters of the several provinces of the Dominion, excepting Manitoba and the North-west Territories, where regulations already exist.

REGULATIONS.

Pound-net Fishing.

1. No person, company, or firm shall fish with a pound-net without having first obtained a license.
2. The pounds, pots, bowls, hearts or tunnels of pound-nets shall be at least 4 inches in extension, and the leaders at least 6 inches in extension; and nothing shall be done to practically diminish their size.
3. The use of double headed pound-nets is prohibited.

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4. The fee payable for each pound-net license shall be \$50.00.

5. Licenses for pound-nets shall be issued to resident British subjects only, and who are the actual owners of the fishing gear included in such license. The applicant shall also describe in his application the locality, the size of net, length of leader, the description of boat or boats to be used, and the kinds of fish proposed to be caught.

6. All nets, materials, implements or appliances used, and all fish caught, taken or killed in violation of the regulations shall be seized and confiscated, and any person or persons violating these regulations shall incur the penalties provided by the Fisheries Act.

7. The pots, pounds, bowls, hearts or tunnels of pound-nets shall be so raised, opened or adapted as to admit of the free passage of fish through, by, or out, of the same from 6 o'clock on every Saturday afternoon to 6 o'clock on each following Monday forenoon; and during such close time, no one shall catch fish by any means whatever, nor shall the pound-nets be used or worked in such manner as to catch or kill any description of fish during the annual close seasons which have been or may be set aside by the Fisheries Act or regulations under it, but if any such fish are unintentionally captured in such net during such close seasons, they shall be liberated immediately thereafter, and any fish so taken, caught or killed and not liberated during the aforesaid "close times" together with the nets or other apparatus used shall be forfeited.

8. No company, firm, trader or person shall use, or be licensed to use, more than five pound-nets.

9. For the information of persons obtaining pound-net licenses under these regulations every license shall have the regulations printed thereon, or appended thereto.

10. These regulations shall apply to the pound-net fishing in all the fresh waters within the Dominion of Canada, except those within the provinces of Manitoba and the North-west Territories.

11. No pound-nets shall be placed at a nearer distance than one mile apart, and the length of leaders to each pound-net shall be determined by a Fishery Officer.

12. The above regulations shall come into force on the 1st day of January, 1893.

By a subsequent Order in Council, action upon this was suspended, pending the report of the Ontario Commission of Inquiry.

The following notice was issued by this department in April, 1893:—

"The following in relation to Net Fishing in 1894 and thereafter will be enforced in all cases:—

" Pound-nets.

"For fishing salmon-trout and whitefish the meshes of the pots shall not be less than $4\frac{1}{2}$ inches.

"For fishing herring and pickerel and other coarse fish, the meshes of the pots shall not be less than $3\frac{3}{8}$ inches; and the meshes of the hearts, tunnels and leaders in both cases shall not be less than 6 inches, in all cases extension measure. No double pound-nets allowed.

" Gill-nets.

"For fishing salmon-trout or whitefish, the meshes to be not less than 5 inches. When fishing for herring, pickerel and other coarse fishes, not less than $3\frac{1}{2}$ inches, all extension measure.

" Seines.

"When permitted to fish for herring, siscoe, pickerel and other coarse fish, shall have meshes in all cases not less than $3\frac{1}{2}$ inches extension measure, and the measurement of the meshes in all of the above mentioned nets shall not be reduced by any device whatever, and shall hold the full measurement when wet or in use fishing.

When the discussion arose regarding size of mesh for pound and gill-nets, some of the Erie fishermen had expressed their views as to the size of meshes and certain members of Parliament represented on behalf of the fishermen that the fishermen would be content with a 3 or $3\frac{1}{2}$ in. mesh, should any change be made by the department from the small 1 and 2 inch mesh in use, which by the evidence was shown to be very destructive to small and immature fish :

At the same time an article appeared in the press to the effect that a meeting of fishermen, and dealers held either at Buffalo, or Erie, they have declared in favour of a $3\frac{1}{2}$ -inch mesh as the proper size to take marketable fish—that less than $3\frac{1}{2}$ inches took fish of an unmarketable size.

Upon this information, and the conclusion of the Erie (U. S.) Fishermen, and from the evidence taken from fishermen and others by the Commission, the $3\frac{1}{2}$ inch mesh was inserted in the notice of the 13th April last, regarding the size of mesh to be called for in 1894 for pound and gill-nets.

It may be mentioned that, a regulation establishing a $3\frac{1}{2}$ inch mesh, would, as heretofore, be construed as meaning a net as obtained from the factory or seller of nets. This $3\frac{1}{2}$ inch mesh when in use in the water would become a 3-inch mesh by reason of shrinkage. This would be sure to be the case with the pound-net twine, as it is always larger than gill-net twine, and being larger would contract more, hence the provision made in the circular that "the measurement of the mesh should hold good when in use, fishing."

In all cases when a mesh size is established by regulations, it should be laid down at $\frac{1}{8}$ or $\frac{1}{16}$ in gill-nets more than the actual size; and with pound-net meshes, the twine being very much larger and the shrinkage greater, fully $\frac{1}{2}$ inch should be added to the size of mesh as bought at the factories or from those furnishing nets. A gill-net of $3\frac{1}{2}$ -inch mesh, when dry, will be only 3 inches when fishing; a pound-net mesh of $3\frac{1}{4}$ -inch mesh, when dry, will be 3 inches when wet and fishing.

THE PRESERVATION OF FISHERIES.

There seems to be hardly room for argument touching the necessity for close seasons and other regulations in order to preserve fisheries.

The following references are in point:

It will be seen that expert authority favours reduction even upon the fisheries of coastal waters and the deep-sea.

Evidence of Mr. F. Buckland Fishery Insp. before a committee of the British House of Commons on the Fresh Water fish protection Bill.

"Spare the fathers and mothers who are the breeders. How can you have any children if you do not. That is my simple principle; that is the principle of all cultivation of birds, beasts, or fishes; it is the principle of the salmon laws; and under Mr. Dillwyn's Act, of 1873, these fisheries are growing up gently, nicely, prettily, because we preserve the young and the old ones."

Extract of Mr. Buckland's report on the salmon fisheries of Norfolk.

"Three points, therefore, naturally occur to the fish culturist as necessary for the cultivation of the magnificent fish farm of the broads. These points are, 1st, annual close time; 2nd, mesh of nets; 3rd, the regulation of other fishing engines. The engines principally used in the Norfolk Broads are drag-nets, bow-nets, eel-nets, and flue-nets; and what may be called floating fixed engines, viz., liggers, or trimmers, and night lines; these liggers are of two kinds, viz., drifting and anchored. The drifting liggers are more destructive to pike.

"Wishing to have a consultation with the proprietors of the Broads, and the anglers, both rich and poor, directly interested in the Broads, I requested that they would be good enough to meet me in consultation. At Norwich, Mr. F. Sutton, of Norwich, was kind enough to arrange this meeting which was attended by many proprietors of Broads, including Mr. R. H. Blake Humfrey, Mr. A. J. N. Chamberlain, the Rev. T. J. Blofield, Mr. Gurney Buxton (ex-Mayor of Norwich), and many other gentlemen. The meeting was presided over by J. J. Coleman,

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M.P., and Mr. C. S. Read, M.P. At this meeting the following resolutions were proposed, seconded and passed:—

1. That the legislation for the preservation of the navigable portions of the Rivers Wensum, Yare, Bure, and Waveney, and their affluents, is urgently required in the public interest.

2. That it is also the opinion of this meeting that such legislation should extend to the Broads connected with such rivers and their affluents, so far at least as to secure a close time during the spawning season.

3. That upon the navigable waters all netting be prohibited except as respects eels and smelts, and then only under special restrictions.

4. That it is not desirable to enact fence months against angling.

5. That upon the Broads and spawning places, and the waters connecting them with the navigable rivers, all netting shall be prohibited absolutely between the 25th day of March and the 25th day of June.

It will of course be expected in this place that I gave my opinion on these resolutions.

I agree with—

A. The desirability of protection by law.

B. The desirability of an annual close time.

I have come to the conclusion that should the legislature determine on passing any law affecting the fresh water fisheries of Norfolk and Suffolk, the carrying out of its details in the form of by-laws, such as annual close time, regulation of mesh of net, use of liggers, &c., should be entrusted to a Local Board of Conservators." ** "If legislation based upon the outlines above laid out were enacted, I am of opinion that the fisheries of the Broads and rivers of Norfolk would, in a comparatively short time, increase to a very large extent, to the benefit of the riparian proprietors, and the public generally; while at the same time sport for anglers of London and its vicinity, as well as those of the large inland manufacturing districts, would be greatly increased." ** "In conclusion, I have to advise the Home Secretary that it is, in my opinion, expedient that the rivers and Broads of Norfolk and Suffolk, as above described, should be 'placed under regulations adapted to prevent their being wasted, and to preserve them for the future.' These regulations should be as follows:—

1. "That a Board of Conservators should be constituted for the management and regulation of the fisheries of the rivers and Broads of Norfolk and Suffolk. This board should have power to make by-laws subject to the approval of the Secretary of State at the Home Office.

2. That there should be an annual close time for all fish frequenting these Broads and rivers.

3. That this annual close time shall commence on the 1st of March and terminate at midnight on the 31st of May.

4. That the annual close time shall apply equally to private and to public waters.

5. That no close time for rod or line is required.

6. That for the present it is advisable to enact the annual close time only. Power, however, should be given to the Board of Conservators to pass by-laws, subject to the approval of the Home Office, as to the regulations of mesh of net, and use of liggers, cutting of weeds, &c.

7. That trawling in the rivers (see Lowestoft case, page 33), should absolutely be prohibited."

"With regard to the present position of fixed nets generally, it is believed that, while it would not be expedient entirely to abolish them, as some have proposed, it would certainly be advisable to regulate and restrict them. There are at this moment more than 200 proprietors of salmon fishings on the sea coasts of Scotland worked by means of fixed

Extract from
Report of
Special Com-
missioners ap-
pointed to in-
quire into the

effect of recent legislation on the Salmon Fisheries of Scotland, 1871, pages 14-15.

nets, which provide for the market a large and steady supply of salmon in the best possible condition, and fetching, in consequence of their higher condition, a larger price than salmon caught in fresh water. It is plainly, therefore, not for the interest of the public—though it may be for that of the river proprietors, that this large and steady supply of wholesome and nutritious article of food should be stopped; and it is in vain to suppose that the increase in the river fisheries would ever compensate, either in quantity or quality, for the loss of the salmon supply that would inevitably result from the total suppression of fixed engines. But while this is true, it is at the same time undeniable that, in many cases, the existing by-laws allow stake and bag-nets to be placed much too close to the mouths of rivers, in some instances within 400, 300, 200 and even 150 yards of the middle of the channel where the river joins the sea. Fixed nets in such positions are most injurious to the fisheries, and most unfair to the upper proprietors. We consider, therefore, 1st, That no stake or bag-nets should be allowed within half a mile of the mouth of any river, and that in some cases it would be advisable to remove them to a distance of two miles; but the distance to which they should be removed would depend very much on the size of the river and the configuration of the coast; 2nd, That no fixed engines should be permitted between the mouths of rivers that fall into the sea so close to each other as the Ayr and Doon, in Ayrshire, and the Dee and Don, in Aberdeenshire; 3rd, That there should likewise be some restriction of the number of stake or bag-nets allowed along a certain stretch of coast. At present a single bay sometimes contains 40 or 50 such nets, and these are frequently joined so as to form a continuous wall of netting extending seaward, from high water mark, for 1,500 feet; 4th, That the junction of stake and bag-nets should be prohibited. Stake-nets should be allowed on the shallow shores to which they are suitable, and bag-nets on the steep rocky coasts, where the depth of water prevents the use of stake-nets; but two or three bag-nets stretched out into deep water beyond the end of a stake net which occupies the whole space between high and low water mark should be prohibited; 5th, That the number, position and extent of the existing fixed engines should be officially registered, and that no addition to their number should be permitted without the consent of the Secretary of State."

Report of the Select Committee appointed by the Imperial Parliament, to consider the expediency of adopting measures for the preservation and improvement of the sea fisheries in the seas around the British Islands, including the prohibition of the capture, landing or sale of undersized sea-fish, &c., page III. Size limits.

"The Committee desire, however, to place it on record, that a Committee of the House of Commons, not an altogether satisfactory tribunal to take evidence with regard to the grievances and wants of fishermen, so far as the evidence of the fishermen themselves is concerned. This is partly on account of the fact that the time at which Parliamentary Committees sit is exactly that at which fishery operations are carried on most conveniently, and with the greatest amount of success; and partly because a Parliamentary Committee necessarily requires all witnesses to attend at Westminster, a source both of expense in the conduct of the inquiry and of inconvenience to the fishermen themselves. Your Committee would therefore suggest that, if further information should appear to be desirable, it might be well that this inquiry should be supplemented by the appointment of small Departmental Committees which, by visiting various fishing centres around the coast, would give full scope to fishermen to bring forward any suggestions or grievances which they may have.

"The principal remedy which has been suggested to your Committee for this state of things, is the enactment of a law forbidding the landing and sale of flat fish below a certain limit of size; and a principal reason given in support of this proposal is a belief that, by the enforcement of a size limit with regard to sale and landing, trawlers would avoid those fishing grounds on which such small fish are mostly captured, owing to the fact that it would not be worth their while to take fish which it would be impossible for them to sell.

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The prohibition of the capture of these fish is not suggested and, indeed, is admitted on all hands to be impossible.

Size limits have already been adopted by Belgium, Denmark and France; though in the case of these countries, the limit is a very small one, namely, in the case of Belgium, for plaice $7\frac{1}{2}$ inches, for soles $7\frac{1}{2}$ inches, for turbot 10 inches, for brill 10 inches, from the point of the nose to the tip of the tail. In the case of Denmark, 8 inches for plaice and 8 inches for turbot, from the point of the nose to the root of the tail. In the case of France, for plaice $5\frac{1}{2}$ inches, for soles $5\frac{1}{2}$ inches from eye to root of tail.

Two limits of size have been suggested to your Committee for such an enactment, one by the National Sea Fisheries Protection Association, which is for brill, 12 inches; for lemon soles, 11 inches; for plaice, 10 inches; for soles, 10 inches; and for turbot, 12 inches; the second, somewhat higher, by the scientific experts of the Maritime Biological Association, founded on the sizes at which the various fishes come to sexual maturity, which, so far as the North Sea is concerned, appear to be 17 inches for plaice; 12 inches for soles; 18 inches for turbot; 15 inches for brill; and 12 inches for lemon soles. These experts, do not, however, recommend that quite so high a limit as that of sexual maturity should be adopted.

Your Committee are unable to recommend either of these limits; they consider that, while it might be desirable to forbid the sale of small flat fish, the adoption of the sizes suggested would involve great hardship to many of the poorer fishermen who fish near the shore in the smaller class of boats.

Suggested size limits impracticable. A smaller limit proposed by Committee.

"They are of opinion that the size limit, below which the sale of small flat fish should be prohibited, should approximate to that already adopted by foreign countries; and they would suggest a limit of eight inches in extreme length for soles and plaice, and ten inches for turbot and brill. They also consider that a strong effort should be made to secure the adoption of uniform regulations for limits of size and other matters by all the nations interested in the North Sea fisheries."

Your committee are sensible of the difficulties of making international regulations, but are nevertheless of opinion that the best method for effectively governing the operations of the various classes of fishermen, and, at the same time, for securing, so far as it may be found possible, the proper protection of spawning and immature fish, would be to throw the responsibility of these duties, so far as the waters immediately adjacent to the various countries are concerned, on those various countries; that, for the effective realization of the object, the present territorial limits of three miles is insufficient, and that, for fishery purposes alone, this limit should be extended, provided such extension can be effected upon an international basis, and with due regard to the rights and interests of all nations. Your committee would earnestly recommend that a proposition on these lines should be submitted to an international conference of the powers who border on the North Sea.

The importance throughout the United Kingdom of greater facilities of transit for fish from outlying districts to centres of population and for telegraphic communication between those centres and the outlying districts, has been made very apparent. Your committee strongly urge that these questions should be favourably considered by the Board of Trade and other departments of the Government before whom they may from time to time be brought, and would especially insist that powers be given to the post office to extend telegraphic facilities where it is desirable, on easier terms than can under existing arrangements be granted.

Facilities for transit of fish to centres of population; telegraphic communication.

Extracts from
evidence given
before the
Committee.

A table was handed in by Mr. John Wrench Towse, Honorary Secretary of the National Sea Fisheries Protection Association, which gives the limit of the size of fish allowed to be sold in Belgium, Denmark and France:—

Fish.	Saleable Minimum (Approximate).		
	Belgium.	Denmark.	France.
	Extreme length—in.	Nose to root of tail—in.	Eye to root of tail—in.
Bream.....			5½
Cod.....	10	8	
Flounder.....			6½
Mullet.....			5½
Plaice.....	7½	8	5½
Shad.....			5½
Sole.....	7½		5½
Sturgeon.....			5½
Turbot.....	10	8	
Whiting.....	7½	8	
Brill.....	10		
Ray.....	10		
Hallibut.....	10		
Haddock.....	10		
Dab.....	7½		

The committee desiring to ascertain how far these regulations were being carried out, questioned the Chief Fishery Inspector of England and Wales on the subject.

CHAIRMAN OF COMMITTEE—

Evidence of
Mr. Arthur
Davies, Ber-
rington, As-
sistant Sec-
retary of Board
of Trade, Lon-
don, and Chief
Inspector of
Fisheries of
England and
Wales.

2448. Can you tell me anything about how far they enforce these regulations?—I have been making inquiries. I have not yet received all my answers. As regards Denmark, I am assured, and I am convinced in my own mind, that their regulations are carried out. With regard to Germany: Prussia and the Hanse Towns have some regulations of that kind, and I wrote to a friend who was connected with fisheries at Berlin, I have had a reply from him, saying that the regulations are carried out and that attention is very frequently drawn to them in the press, so that the matter is kept before the people there. With regard to France, my correspondent, I am sorry to say, is away from home, and I have not had an answer from him, but, judging from their usual mode of dealing with those things, I should think that probably the regulations are carried out. They are under a comparatively old act, and not anything very recent. With regard to Belgium, I have not yet received an answer to my letter, but about two months ago, my colleague, Mr. Mallan, met probably the best authority in Belgium, and had a conversation with him on the subject, and he said that the law was being carried out; that they had had some slight trouble at the first, but that afterwards they had no further trouble, that is as regards this particular law, as to the sale of undersized fish. From Holland, I have had a good deal of information, but I pressed for an answer on the point as to whether they did really prosecute any body, and I have had a telegram this morning from Amsterdam saying, yes, they do, and the particulars are on their way.

2449. Perhaps you might be able to let us have those later on if you get them?—If you please.

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2450. May I suggest to you this general question; do you, from the information that comes to you, consider that the fisheries in the North Sea for flat fish are deteriorating?—I have no doubt of it. Boats go so very much further away to catch fish than they used to; they cannot get the same quantity that they used to near home.

2945. I think you can now rather supplement the evidence you gave three weeks ago on the subject of the enforcement of the law with regard to the capture and sale of immature fish in foreign countries, can you not?—Yes, I have had answers to nearly all my inquiries now. I have already stated that in Denmark and Prussia the existing law is carried out.

2946. Can you tell us how? By what body is it enforced?—I do not know in Germany; but in Denmark it is under the supervision of any rate, of Captain Drechsel, who is the head of the Fishery Department.

2497. Have they a special police for the purpose?—No, I imagine not. I have no definite information, but the Act is strictly carried out and persons who infringe it are prosecuted, so I am informed.

3170. Then so far as Scotland is concerned, you would rather be against any prohibition of the sale, capture, or landing of immature fish, would you?—I would not be against it except for the reasons which I think will be convincing almost to the committee. We cannot capture the mature fish without catching these small fish; we have killed them, we have destroyed them for any future usefulness, and if they are of any value to land and sell for food, I think it would be a great pity to prevent that being done, because that would only aggravate the evil. If it were possible to return them to the sea alive, or to any way preserve them in any large proportions, then I should say that ought to be done, but if we take into account the difficulties of the different spawning seasons and that mature fish are found occasionally in ground where there is immature fish the difficulties increase upon us. Therefore, in place of that I would rather be disposed to say that if there are localities where large quantities of immature fish are swarming, and where the number of mature fish are not so very considerable, it would be more effective to keep the fishermen, especially the trawl fishermen, off that ground altogether, than deal with them in detail after they have caught the fish.

Extract from the evidence of Mr. Esslemont, Chairman of the Scotch Fishery Board.

4387. I would also agree with Captain Dannevig in saying that the hatching of fish should go hand-in-hand with the restriction and prohibition of certain other matters. I also would second entirely his statement as to the rearing of fish as well as hatching them. To hatch alone is only half the difficulty, but to hatch and rear until the critical stages have been passed is in my opinion most valuable.

Extract from the evidence of Mr. W. L. Calderwood, page, 214.

Extract from the general statement showing the results of over-fishing and necessity for the protection and development of fisheries. Referring to the experiments of the Garland, in beam trawling, the following information appears:—Page 10.

Extract from the Eleventh Annual Report of the Fishery Board for Scotland, being for the year 1892.

“As has been said, a certain and indefinite amount of natural fluctuation, due to variations in the conditions of the weather, &c., must be taken into account in considering these trawling statistics. But it is improbable that this is the principal explanation of the gradual and considerable decline in the abundance of the food fishes which the figures disclose. And it must be borne in mind that these figures refer to nearly 150,000 fishes, captured in about 700 hauls of the net on the same grounds. It would rather appear that the collective results of the Garland's observations point to general over-fishing, especially as was indicated in last years report, in the extra territorial waters where the food fishes mostly spawn; and thus the normal supply of floating fish eggs and larval fishes does not reach the inshore grounds. It is a noteworthy circumstance that although the prohibition of beam trawling in

territorial waters must have served to protect immature plaice more than the young of other fishes (owing to their very special distribution) this fish is diminishing in abundance year by year.

Over-fishing of the Sea, and its Remedies.

(Extract taken from same report, page 12.)

"The falling off in the relative abundance of certain of the food fishes, especially in the waters near the shore, when compared with the increase in the means of capture, is not confined to the east coast of Scotland. In England, Norway, Denmark, Belgium, Holland, France, Spain, Canada, Newfoundland,—indeed, wherever sea-fisheries are prosecuted on a large scale—similar complaints are made; and in many of these countries remedial measures, by stringent regulations and the artificial propagation of the more valuable of the food fishes, have been carried into effect. It has now been made clear by statistical and scientific investigations that the seas around our coasts are not the inexhaustible store-houses of food material that they were thought to be less than a generation ago. The doctrine that the operations of man cannot disturb the balance of life in the sea, and diminish or exhaust the supply of valuable food fishes, is now abandoned by fishery authorities, almost everywhere." Page 13

"In Scotland, by the operation of the Herring Fisheries (Scotland) Act of 1889, and by the by-laws passed by the Board in conformity with that Act, the whole of the territorial waters and certain firths and bays, have been closed to beam trawling."

NETS AND SEINES—THEIR USES.—BY A MEMBER OF THE BUREAU.

Extract from
the 13th annual
Report of
the Boston
Fish Bureau.

The purse seine is principally used upon the Atlantic Coast for taking mackerel and menhaden. They are very little used in any other branch of fishery.

Seines are, however, used in some localities upon the Pacific Coast for taking salmon, smelt, shrimp and small herring, and in different localities along the Atlantic Coast and Gulf of Mexico.

The mackerel purse seines are generally made from 80 to 225 fathoms long, and they vary in depth from 7 to 20 fathoms.

These seines are set from a seine-boat, from 30 to 40 feet in length, the seine being paid out over the stern of the boat, encircling the school of fish.

When the two ends of the seine have been brought together, the purse line, which is reeved through rings attached to bridles upon the bottom of the seine, enclosing that part, so that the fish are completely surrounded.

The seine is then hauled on board the seine-boat, until the fish are gathered together at the bunt of the seine, where they are bailed out on deck of the schooner, which has been brought alongside of the seine, while it is being pursed.

These seines are made of very light twine and are handled by about 13 men, that number being required to row the seine-boat, handle the seine and purse it. To purse a large mackerel seine requires from 3 to 5 minutes, depending upon circumstances. Cod seines are something that are very little used, excepting on the coast of Labrador, Newfoundland and Nova Scotia. They are large hauling seines used in the shore fisheries; they are made from 80 to 100 fathoms long and from 40 to 100 feet deep.

They are set from the seine boats and are generally hauled ashore, the fish being bailed out of them after they have been hauled in, so that the fish are collected together in a compact body.

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During the past few years there has been a tendency to use these seines something after the fashion of purse seines, and many fishermen have had them rigged with rings on the bottom and with purse lines, so they could be used in deep water. The gill-net is the most ancient form of fish net and is used in a great variety of forms.

Along the sea-coast of the United States it is used in taking salmon, bluefish, herring, codfish, shad, mackerel, bass, etc.

Gill-nets are made of mesh of the proper size to take the different kinds of fish wanted, and as the name implies, they catch the fish by the gills. These nets are set stationary in most places, although in some localities, and for some kinds of fish they are allowed to drift. Gill-nets used in salt water as a general thing are rigged to float either at the surface or within a few feet of it; nets for herring and mackerel being rigged in this way almost entirely.

Gill-nets used in taking codfish are rigged to sink to the bottom; they are made with mesh of 6 to 9 inches, and are set in very deep water.

Bluefish nets are also rigged in very much the same style. In many localities, at certain seasons of the year, the mackerel gill-nets are rigged to sink.

The great bulk of gill-nets used in the salt water fisheries are made of cotton twine; linen, however, being used quite largely for shad gill-nets, which require a large mesh and very fine twine.

Within the past few years there seems to have been an increase in the amount of gill-net fishing done, principally in the region of the great lakes, where a large percentage of the fish are taken by this method.

Unlike the salt water fisheries, the gill-nets upon the lakes are made of linen of the finest and best quality of linen threads and are used principally in taking whitefish, lake trout and herring. These nets are nearly all rigged to sink to the bottom and fish within 6 or 8 feet of it. They are very light nets and are fished from one boat, generally a tug, fitted out for the purpose which attends to its gang of nets daily.

Trap or pound-net fishing has always been a profitable one upon the Atlantic coast and is used in the capture of cod, bluefish, salmon, herring and mackerel.

These traps are made in a great variety of forms and sizes: the general plan, however, is very much the same.

This consists of a large pound or box with a suitable entrance for the fish, and is supplied with wings and leader for directing the fish into them. These traps are set both floating and upon stakes, and are made to fish in deep water up to 14 or 15 fathoms.

This style of fishing takes only the fish that happen to strike the shore where the traps are set and is, perhaps, the most uneven in its operation from year to year of any.

Some seasons the traps do exceedingly well, and then they are likely to go for a number of seasons with poor success. When the fish are running in large numbers the traps frequently take immense hauls, as many as 1,000 or 1,500 barrels being taken at a single haul.

They are generally fished from a boat which is run into the bowl or box of the trap, the netting hauled up under it and the fish brought together so that they can be bailed out.

FISH-WAYS.

BY INSPECTOR HOCKIN.

The nursery of some of the most valuable of our food fishes is in the shallow waters, brooks and streamlets flowing into the upper portions of rivers.

The salmon, for instance, the annual catch of which upon the Atlantic coast alone is estimated as worth \$520,000, ascends nearly to the headwaters of rivers and there deposits its spawn in gravelly beds. And it has been observed to follow with as much certainty as the night the day, that should anything occur to prevent these fish reaching the headwaters by the construction for instance of impassible mill-dams, that the history of the fishery has been one of rapid decline, and from a little consideration it will be readily seen that it is inevitable that this should be the case.

It is well known that spawning beds in the shallow parts of the rivers are not so liable to destruction by the ice during spring freshets, for in these portions of the river ice does not form to so great a depth and is the first to thaw.

Eels which bore in to the beds and devour the spawn are not so abundant in the shallow waters.

Spawn deposited by the parent salmon in the autumn develops into fry by the following spring, and so soon as they have sufficient strength they swim up stream, for it is in the brooks and streamlets they find the insect life upon which they subsist and there too they are safer from the attacks of predaceous fish.

Having passed the fry stage, the fish enters the ocean in the second year of its life.

With the construction of a dam across a stream, the conditions of fish life are completely changed; for if the parent salmon should deposit spawn below a dam it is in waters which have been polluted with saw-dust or there is the danger previously spoken of, that ice destroys the beds or that eels devour the spawn or predaceous fish make a meal of the fry, so that the probabilities of spawn reaching maturity which has been deposited in the deeper waters below a dam, as compared with that deposited as it would be if the natural conditions be restored, is as a matter of course reduced to a very small fraction.

Now not only is the mill-dam a source of enormous injury to the salmon fishery, it is equally destructive to the important fish whose habitat is in the great lakes, but which ascend rivers to deposit its spawn and among those are the bass and fish of the pike family, pickerel, maskinongé and doré.

The foregoing are among the most valuable of our food fish, but of scarcely less importance upon the fisheries are the alewives or gaspereaux. These fish deposit their spawn in lakes and still waters, and while of material value themselves, they, with other bait-fish have an important bearing upon the coast fisheries, for when the former come upon our coast in the spring they attract the deep-sea fish which follow and feed upon them.

Again, the young fish in the fall of the year descend in great numbers and are fed upon by deep-sea fish so that when these and other anadromous fish were plenty in our rivers then also there were abundance of codfish, haddock and other deep-sea fish on our coast, and it is from the decreasing numbers of these fish that year by year the deep-sea fish are found further and further from the shore.

It does not appear to be necessary to point out that with the construction of a dam across a stream the inevitable result must be the annihilation of the alewife fishery.

Therefore not only have we the indirect results which it is impossible to measure, but we have the direct injury to the anadromous fish, and the extent of this injury may be estimated when it is shown that the annual value of these fish taken in Ontario and Eastern Canada is about \$1,000,000.

It would not appear to be overstating the case when it is remembered how very many of our streams are obstructed by dams, that if these were restored to

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their natural conditions, this fishery could be increased in value ten per cent, or \$100,000 per annum. Indeed, I think, the possibilities, yes, even the probabilities are much greater than this.

Of course, the great problem has been how to reconcile the interest of mill-owners with the fisheries interest, and while efforts had been made in this direction, I think it can now be said with confidence that this problem has been solved.

In the report of last year, a fish-way patented by me was fully described, and the success which has resulted from its construction warrants me in making this statement.

Quite a number of these fish-ways, were built in Glengarry County, Ont., and Soulanges County, Quebec, and while their first construction was imperfect, because the specifications and instructions were not carried out, they were easily remedied, and satisfactory reports received from Mr. Williams, the vice-president of the Game Society, at Williamstown; the Mayor of River Beaudette, Mr. McNow, and the fishery officer in charge, overseer Boivin, that these structures worked satisfactorily and fish were seen above them this year for the first time since the dams were built.

It is true some lessons had to be learned with regard to the fish-way on the Oromocto River as far as the alewife fishery is concerned.

The velocity of discharge through my fish-way is under entire control, and may be made "to roar as the lion or coo like the turtle dove," and this by regulating the number of compartments and the size of the apertures. Just what force of current the alewife could contend against has heretofore been unknown, that it is a very considerable velocity when it can use the spines on its belly is well known, but it was found to be a comparatively weak fish when forced to swim unaided against a current; all that will be necessary, therefore, will be to have a plank floor just at the bottom of the apertures.

I am pleased to state that at the World's Fair held at Chicago, my fish-way received the highest award, and as it was brought into competition with the fish-way of the world, the department may accept it as the best known means for allowing fish to swim from a lower level to a higher.

Within a comparatively recent period the question of fish-way construction has received attention from the governments of several important nations.

In the United States the subject comes under the province of the State Legislatures, and of these the States of New York, Pennsylvania, Massachusetts, Nebraska, Wisconsin have spent large sums in their efforts to open up streams. Norway and Sweden have given the subject some attention, and one of the best papers upon fish-way construction was written by the inspector of fish-ways for Finland.

The Fishery Board of Scotland have had a number of fish-ways of various forms constructed: and by reference to the report of last year it will be seen that this body have commended my model.

From the reported condition of rivers in Eastern Canada and from facts which have come under my observation, I am warranted in stating that there are in existence to-day 200 mill-dams obstructing our rivers unprovided with fish-ways, and while some progress is being made by your department, it is quite evident if anything like a complete remedy for this state of matters is to be obtained, it will only be by an effort upon a very different scale from what has been made in the past.

Of course, the millowner objects to build fish-ways, and has to be brought to this step by step, and as these structures can be built only when the water is low in the rivers, it will be readily understood that the work has not progressed very rapidly.

Previous to the invention of my model, it would have cost probably \$75,000 to provide a fish-way in each of these two hundred dams, but it is now practicable to construct them for about \$40,000, and that after a design which has been approved as the most efficient in use.

It will be seen from statements made in this paper that such a sum expended in this work would, by judicious management after construction, be returned many times during the life of a fish-way.

I have referred to judicious management after construction: this would involve a report from an officer in charge of a fish-way at least weekly of its condition.

Such an officer should be empowered at once to repair or remedy one in case of accident, the cost becoming a charge on the owner of the dam.

The following fish-ways have been built during the past season: 2 on Jordan River, Shelburne Co; 1 on Gay's River, Halifax; 1 on Fox River, Cumberland; 1 on Philip River, Cumberland; 1 on Chateauguay River, Quebec.

A number have been prescribed for dams at Bobcaygeon and upon the Beaver River, Clarksburgh, Ontario, and are in the course of construction.

The following statements have been made over their signatures by the officers in charge of fish-ways constructed after my model.

J. P. Webber, special guardian, in charge of one constructed in a dam at the foot of Snake Lake, Ingram River, in the county of Halifax, says under date June 19, 1893, "Salmon have been seen jumping at the head of the Lake."

Overseer Gaston says of one constructed in Kneelands dam, Tangier River, in the county of Halifax. "Salmon have been hooked in the lake above the dam since the construction of the fish-way."

Guardian Charles McDougall, of Garden of Eden, in the county of Pictou, says of one constructed in A. Cameron's dam, on the St. Mary's River, in Pictou County. "There is no discount about the new fish-way, I have sat there and seen them pass up by the hundred into the dam, besides, I see them in the lake above."

Mr. Williams, Vice-President of the Game Society, who resides at Williamstown, county of Glengarry, says of fish-ways constructed after my model in McDonald and Dingwall's dam, Williamstown, and Smith and Willing's dam, "in order to ascertain whether fish were going through these fish-ways, I went with the local fishery officer and shut the water off and we found bass and suckers in the fish-way; "not only is this the case, but the local fishery officer (who was appointed by the Local Government) informs me that there are numerous fry of the black bass to be seen in the creeks.

The Cornwall *Gazette*, in May of this year, had an item that Overseer McDonald had examined these fish-ways and satisfied himself that they were working satisfactorily. (This officer had previously reported adversely.)

Overseer Boivin says of fish-ways in dams on the River de Lisle, Soulanges County: "I made careful inquiry and the people on the river are well satisfied with the fish-ways. Bass, suckers, pickerel and maskinongé have been found above the dams this season and these fish had not previously been found there."

Mr. McNow, of River Beaudette, warden of the county of Soulanges, and who was president of the Game Society, and one of those who urged the construction of fish-ways in these dams, says under date July, 1893:

"I am quite familiar with the River Beaudette fish-ways, known as the Hockin fish-way, which were constructed in Judge Ross's dam, also in McLennan's dam, in 1892, and I know that in the spring of 1893, bass, maskinongé and doré have been taken above those dams, and as these fish have not been found there for many years previously they must have gone through the fish-way.

I am satisfied that where they are properly constructed these fish-ways work well."

The following is an extract from Overseer D. J. Macdonald's letter, dated Alexandria, July 4, 1893:

"In regard to Inspector Hockin's letter as to placing traps at the head of his fish-way, to find out if fish were going up, I learned on inquiry that fish had been seen going up and deeming this satisfactory I did nothing further."

THE FISHERIES OF BRITISH COLUMBIA.

The fisheries of British Columbia are probably the richest in the world; in 1873 little had been done to develop them. They were then hardly spoken of as an interest, or industry, with the exception of an attempt at putting up salmon in tins on the Fraser River, and one or two whaling enterprises of a few years' standing, no efforts appear to have been made to develop the resources of the province in this respect.

A description of the different kinds of fish found in the waters of British Columbia, is given in an article by Sir Hector Langevin, in 1873. There was no law

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regarding the protection of fish in British Columbia before the Union with Canada.

Oysters were in 1873 said to be found in all parts of the province. Though small, in their native beds, they were represented as finely flavoured, and of good quality. Rev. Mr. Lundin Brown, in 1863, gave a list of the different kinds of salmon and other fish found in British Columbia waters.

There are interesting references to the extent and value of the British Columbia fisheries, in a prize essay by Mr. Alexander C. Anderson, of Victoria, who subsequently became Inspector of Fisheries for the province.

In 1874, Mr. Alex. C. Anderson prepared a paper on the fish of British Columbia. He mentions that the experiment of preserving salmon in cans, fresh and cooked, which was first introduced on the Columbia River, had been successfully adopted in British Columbia. On the Fraser River, this trade, though comparatively in its infancy, had then attained considerable proportions. The public prints estimated its value from \$200,000 to \$250,000 for the year 1874; Mr. Anderson, however, questioned whether a large proportion of the salmon packed on the Fraser River that year, would favourably compete in the London market with the uniformly rich produce of the Columbia River fisheries.

In his annual report for 1874, the agent of the Department of Marine and Fisheries states that the export of salmon from the Fraser River, for that year, reached 18,179 cases and 2,624 barrels. Nothing, however, is said of the salmon consumed by Indians.

Organization of the Fisheries Service in British Columbia.

On the 8th May, 1876, in accordance with the provisions of the Act 37 Vic., chap. 28, respecting the extension and application of the Fisheries Act to the provinces of British Columbia, Prince Edward Island, and Manitoba, a proclamation was issued extending the application of the above statute to the province of British Columbia, and declaring that the Fisheries Act, 31 Vic., cap. 60, would come in force in that province on the 1st July, 1877.

The principal clauses of the above statute, applicable to British Columbia, were as follows:—

1. Fishery officers, having magisterial powers to be appointed for the enforcement of the Fisheries Act and the Regulations under it.

2. Power to the Minister of Marine and Fisheries to issue fishery leases and licenses.

3. The salmon fishery to come under proper regulations and restrictions as to the times, modes and places of fishing. The size of meshes of nets used in the salmon fishery fixed at not less than five inches extension measure. The use of such nets confined to tidal waters. The tidal boundaries of estuaries to be defined. Above these limits, it was unlawful to fish for salmon with nets. Fishery officers had power to determine the distance between salmon nets. The catching of salmon in the neighbourhood of artificial passes, or in any spawning pools, prohibited. It was forbidden to have in possession salmon roe, or to injure spawning beds.

4. The possession, or sale, of fish, during prohibited seasons, declared to be illegal.

5. Provision for the building and maintenance of efficient fish-ways on mill dams.

6. Fishing on limits leased or licensed to others, forbidden. Navigation not to be obstructed by seines or nets, nor the main channel of streams interfered with. No nets to be set in such a manner so as to entirely obstruct the passage of fish. The killing of fish, when attempting to pass through a fish-way, was prohibited. The young of fish were not to be taken. A weekly close time extending from Saturday evening until Monday morning, was enacted.

7. The throwing into the water of fish offal, dead, or decaying fish, deleterious substances, and saw-dust, prohibited.

8. The statute authorized the Minister of Marine and Fisheries to set apart certain waters for the natural and artificial propagation of fish, and to grant permits

for the taking of fish and fish spawn for stocking or artificial breeding purposes. It also authorized the granting of licenses for the cultivation of oysters, and provided for the protection of oyster beds and other shell-fish fisheries.

9. Penalties were enacted for each offence against the provisions of the statute or of the regulations under it. Illegal fishing materials used, and fish illegally caught were liable to confiscation. In default of payment of the penalties imposed, defendants became liable to imprisonment. The mode of recovering penalties was regulated.

10. Fishery officers were empowered to convict on view. They were given authority to search, or grant search warrants; to pass over land in the discharge of their duties, and to settle disputes as to limits of fishing stations.

11. The Governor in Council was empowered to make fishery regulations, and to vary the provisions of the statute. The publication of such regulations in the *Canada Gazette* gave them legal effect.

Mr. Alex. C. Anderson, of Victoria, whose name has already been mentioned, was, in pursuance of the proclamation, appointed, on the 27th April, 1876, Inspector of Fisheries for the province of British Columbia.

A leading journal, the *Daily British Colonist* pointed to the necessity of regulations for British Columbia in the following article, published 21st December, 1877.

“ THE FISHERIES.

“ We are pleased to chronicle the return of the esteemed Fisheries Commissioner to Victoria. We should experience greater pleasure were we authoritatively informed that in future he will personally supervise the fisheries during the season. We take it for granted that Mr. Anderson has been made acquainted with all that went on at Fraser River last summer; that he has been told of the wanton destruction of fish-life of which more than one company was guilty; that he has heard that as many as 5,000 dead fish were thrown back into the river in a single day because there were no facilities on hand for preserving them; that the salmon were followed to their spawning grounds and there captured; that nets were stretched across the rivers so as to prevent the fish ascending the stream; that with scarcely any interval of rest the fish were caught after the fishermen had been notified that the canneries could provide for no more—the object seeming to be to destroy as many salmon as possible. “ Wilful waste maketh woful want,” and we shall be agreeably surprised if the effects of last summer’s over-fishing (if wholesale butchery can be called fishing) be not felt for many years to come in diminished “ runs” and light “ catches.” Speaking of the salmon fisheries, we observed that a meeting has been held at Westminster (which was attended by the Commissioner) and that arrangements were made for providing funds for the establishment of a hatchery. This is well as far as it goes; but a dozen hatcheries would be unable to provide for the exhaustion caused by a repetition of the criminal folly that some of the companies were guilty of last summer. Great Britain, Eastern Canada, California, Oregon, all lament the rapid decay of salmon fisheries. Why should not their loss be British Columbia’s gain by inducing the adoption on Fraser River and elsewhere throughout the province of the simple and effective rules that experience has proved will preserve fish wealth from complete destruction. We do hope that Mr. Anderson will see to it that the scenes of last summer are not repeated. If other duties require his presence elsewhere, a competent deputy should be appointed to look after the fishery interests, which, with good management and superintendence will become one of the remunerative and permanent industries of the province. No man should have it in his power to say, as a Fraser River steamboat man gloomily expressed it one day last summer, that “ Fraser River is *alive* with dead fish from Harrison River to its mouth !”

An article which appeared in the *Mainland Guardian* of the 28th July, 1877, referred to the subject as follows:—

“ But where it is known that the fish are in such numbers that, although in some cases one-half the boats are laid up as being unnecessary, the enormous hauls by

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the boats still at work, furnish more fish than the canneries can use, and consequently that large quantities have to be thrown back into the river, the malicious character of these fishery disputes will be better understood. That they must be put down with the strong hand, no one can doubt; that any one found with an excessive tendency to disputes must be excluded from fishing altogether, either by himself or his agents, would only be a fair protection for those who desire to follow the pursuit peaceably and fairly."

The Inspector in January, 1878, reported as follows:—

While at New Westminster, on my way down, I had a meeting with most of the fishery owners of that vicinity, at which various matters connected with the past and future of the fisheries were discussed. Among the rest, the subject of a breeding-establishment was introduced.

The objects to be attained by the formation of such an establishment are two-fold:—

1. To secure a regular supply of salmon year after year, to supplement the present natural supply, which, though periodically most abundant (as witness the past season), is partially intermittent, through causes depending apparently on the peculiar habits of the salmon of these waters.

2. To introduce into the waters of the Fraser the large salmon of the Columbia River (*S. quinatt*), a most valuable fish, the introduction of which would largely enhance the prospective value of our fisheries.

In this matter I suggested to the meeting that, in order to approach the Government effectively, and to elicit the most speedy action, it would be expedient to submit to them some definite proposal, in guarantee of their own earnestness.

Thereupon a series of resolutions were proposed and carried, a memorandum of which, by request of the meeting, I now respectfully submit herewith.

You will perceive that the fishery owners themselves propose, with this definite object in view, to raise a fund to yield annually, as computed, some \$7,500 in aid of primary outlay, and the continuous expense of the department for the protection and regulation of the fishery interests in this province.

The amount of boat license proposed may probably be considered by you excessive; and it is for you to judge whether or not it should be somewhat reduced, or, indeed, whether in this or some other mode the necessary contribution should be raised in aid of future outlay. I may, however, add that the form and amounts suggested in the memorandum were unanimously approved by those present, and would, therefore, it is to be presumed, be generally acceptable.

MEMORANDUM.

At a meeting held at the Colonial Hotel, New Westminster, B.C., on the 17th December, 1877, Mr. Anderson, Inspector of Fisheries, being in the chair, and the following gentlemen, connected with the fishing interests on the Lower Fraser, being present, viz.:—Messrs. Holbrook, English, Herring, Ewen, Wise, Birrell (the last representing the firm of Finlayson & Lane).

Mr. Birrell acting as secretary, the following resolutions were carried:—

Mr. English proposed that the Dominion Government should be asked to make an appropriation for the establishment of a breeding establishment for the regulation of the supply of salmon, at a suitable point on Fraser River, the cost of which it is estimated would be about \$20,000. In aid of this object, and to provide a fund for the subsequent expenses, it is proposed that a license of twenty dollars on every boat employed in the fishery shall be paid in advance, and also a tax or duty of eight cents per case of four dozen one-pound cans of preserved salmon, and twenty-five cents per barrel of salted salmon, packed at any cannery or curing establishment on Fraser River. Mr. English's proposition, which was unanimously concurred in would, based on the production of the past season, yield a revenue of about \$7,500; and it is probable would, with the extension of the industry, exceed that limit.

Mr. Ewen suggested that, as a preliminary measure, a competent person, versed in the subject of fish-breeding, should be sent from Canada to examine and select a suitable position for the erection of the proposed establishment.

The meeting is of opinion that the General Dominion Fishery Act is quite inapplicable, as a whole, to this portion of the Dominion, bearing in view the different habits and nature of the salmon frequenting these waters.

Mr. Wise drew the attention of the Inspector to the necessity of enforcing that portion of the Act which prohibits the emptying of saw-dust into the rivers.

It was also unanimously agreed that the Dominion Government be respectfully requested to appoint the steamer "Sir James Douglas," or other efficient vessel to remove the snags at those points where they impede the drifts, from the mouth of the river upwards as far as St. Mary's Mission.

Correspondence subjoined shows the interest in the protection of the Fisheries in British Columbia, then felt :—

THE SENATE, February 20th, 1878.

SIR,—With reference to the question of necessary protection to be given by law to the salmon of British Columbia, on which subject we have already had the honour of a conference with yourself, we, in accordance with your expressed wish, beg to make the following suggestions :—

In the first place, we might premise that, as the habits of the salmon frequenting the rivers emptying into the Pacific Ocean appear, from the most reliable information to be obtained, to be different to those of the same species on the Atlantic seaboard, any regulations which it might seem well now to put in force should be only of a temporary character, while during the coming season, some officer thoroughly conversant with the subject should be sent by the department to British Columbia to investigate the matter and report upon it.

In the second place, we would propose to prohibit for the coming season, commencing April 1st, the taking of salmon by seine, gill or other nets, or any fixed or moveable traps, &c., for canning and exportation, above the tidal waters in the rivers of British Columbia. In the Fraser River, which is the principal river fished in this way at present, this regulation would leave available for netting some 60 miles in length of water, extending from the mouth of the river to a place called Sumass.

Thirdly, that the size of the mesh of the nets used should not be less than five inches in extension; that no net should be longer than one-third the width of the river, and no two nets, traps, &c., be fixed or allowed to drift nearer to each other than a distance of 250 yards.

Fourthly, as to close time, it would appear that there are three or four distinct species of salmon which ascend the rivers of British Columbia at different times of year, and have different breeding seasons. To protect them all by an annual close time suitable to each would be practically to close the fisheries all the year round. Under these circumstances it must be for your department to consider what duration of weekly close time would be sufficient. We would suggest from 8 a.m. on Saturday till twelve midnight on each Sunday, thus allowing the fish two whole days and a night and a half in each week, to ascend the rivers free from interference.

In the fifth place, the canneries and fish-curing establishments should be compelled to bury their fish offal, or else to utilize it on shore for manure or otherwise. We would not allow the use of the perforated boxes mentioned in the Fisheries Act, 1868. We are of opinion that the above regulations will be sufficient for the present if duly enforced. We are sure they will be in no way offensive to those already engaged in the fisheries, or detrimental to their interests, while, at the same time, they will afford the salmon a fair chance of reaching the spawning beds in the higher reaches of the river in sufficient quantities. But it is essential that active, efficient and well paid overseers or bailiffs should be appointed to enforce the carrying out of the regulations in their entirety, and this especially on the Fraser River.

We will take this opportunity of calling your attention to the question of the advisability of at once organizing a fish-breeding establishment in British Columbia. It has, doubtless, come to your knowledge that during the past fishing season the proprietors of different canning establishments on the Fraser River, being called together by Mr. Anderson, the Inspector of Fisheries for British Columbia, voluntarily invited the imposition of certain taxes on themselves and their establishments

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in order to raise a certain sum to supplement any grant which might be made by the Government of the Dominion for such a purpose. Their prudence and foresight and willing liberality cannot be too highly commended, and it would seem that the Government could hardly do less than meet them half-way. The experience so dearly gained in all rivers of the extraordinary way in which the numbers of salmon annually decrease, unless some such means are taken for their preservation, and artificial increase would clearly point to the advisability of establishing such an inexpensive and, at the same time, useful and remunerative concern, at an early date. Besides, the security which would be given by such an undertaking, with regard to the regular annual supply of the fish frequenting the rivers of British Columbia, it is considered of great importance to introduce into them the very large and valuable species of salmon found in the Columbia River in the neighbouring United States, but unknown in our province.

We would ask to call your attention to the fact that it was solely with the above object in view that the offer above alluded to with reference to taxation on fishermen and fishing implements on the part of the fishermen was made, and not with a view of meeting the expense attendant on the employment of fishery overseers or water bailiffs. An industry which, in almost the first year of its establishment, exports fish approaching in value to half a million of dollars is clearly of such direct and indirect value to the Dominion at large as to warrant the Government in going to a certain expense to secure its continuance; and it would hardly seem just that while Indians and others can, without taxation and unfettered, secure fish for home consumption, that some should be taxed merely because the fish they take may have a different destination.

We have the honour to be, sir,
Your obedient servants,
(Signed) CLEMENT F. CORNWALL,
do F. J. ROSCOE,
do EDGAR DEWDNEY.

The Honourable
The Minister of Marine and Fisheries.

COPY of a Report of a Committee of the Honourable the Executive Council, approved by His Honour the Lieutenant-Governor, on the 19th day of March, 1878.

On a Memorandum from the Honourable the Provincial Secretary, dated the 19th day of March, 1878, recommending the approval by His Honour the Lieutenant-Governor of an Address of the Legislative Assembly, requesting that His Honour will be pleased to take into consideration the following resolution of the House:—

“Whereas application has been made to the Dominion Government for the exclusive right to fish in certain parts of Fraser River, which, if granted, will be a great injustice to the fishing interest;

“That this House is therefore of the opinion that the Government should respectfully request the Dominion Government not to grant any exclusive rights to fish for salmon in the waters of British Columbia.”

The Committed advise that the recommendation be approved.

Certified,
WILLIAM SMITHE,
Minister of Finance and Clerk of Executive Council.

16th February, 1878.

MAY IT PLEASE YOUR HONOUR, —We, Her Majesty's dutiful and loyal subjects, the Legislative Assembly of the province of British Columbia, in Parliament assembled, beg leave to approach your Honour with our respectful request that your Honour will be pleased to take into consideration the following resolution of this House:—

"Whereas application has been made to the Dominion Government for the exclusive right to fish in certain parts of Fraser River, which, if granted, will be a great injustice to the fishing interests;

"That this House is therefore of opinion that the Government should respectfully request the Dominion Government not to grant any exclusive rights to fish for salmon in the waters of British Columbia."

(Signed) J. ROLAND HETT,
Clerk.

To His Honour

The Honourable ALBERT NORTON RICHARDS,
Lieutenant-Governor of the Province of British Columbia.

The following were the fishery regulations for British Columbia adopted by the Governor General in Council, 30th March, 1878:—

1. Drifting with salmon nets shall be confined to tidal waters; and no salmon net of any kind shall be used for salmon in fresh waters.

2. Drift-nets for salmon shall not be so fished as to obstruct more than one-third the width of any river.

3. Fishing for salmon shall be discontinued from 8 o'clock a.m. on Saturdays to midnight on Sundays.

The following correspondence then occurred:—

(By Telegraph from New Westminster, B.C.)

OTTAWA, 24th June, 1878.

Please withdraw adoption of fishery regulations till further advised by letter. There is no salt water salmon fishing in British Columbia rivers. Does fresh water mean waters affected by tides? Enforcement of this rule virtually closes canneries. Closing salmon fishing till midnight Sunday compels canneries to close Monday for want of fish. They ask for close time to be from noon Saturday till 6 p.m. Sunday. Please reply.

(Signed) T. R. McINNIS, M.P.

To Hon. A. J. SMITH.

Telegram.

OTTAWA, 24th June, 1878.

Don't enforce close season according to regulation. Let it be from Saturday noon till 6 p.m. Sunday.

(Signed) A. J. SMITH.

To A. C. ANDERSON, Esq.,
Fishery Officer, Victoria, B.C.

By Telegraph from Victoria, B.C.)

OTTAWA, 6th July, 1878.

Canneries anxious that words be added at end of section 1 of Order in Council, 30th May, as follows: "Above established tidal limits."

(Signed) A. C. ANDERSON.

To Minister Marine and Fisheries.

Among other things the desire for a hatchery was expressed:—

"Resolved,—Referring to the action taken by the Board of Cannery Proprietors at their meeting, held on the 20th day of March, 1878, recommending the establishment of a salmon hatchery on the Fraser River during the present season, this meet-

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ing respectfully requests Mr. A. C. Anderson, Inspector of Fisheries, to urge upon the Honourable the Minister of Marine and Fisheries, the desirability of a sum, say \$25,000, being placed upon the estimates of the present financial year to secure this object."

"Resolved,—Also, that Mr. Anderson be also requested to recommend that a thoroughly efficient officer be instructed to visit the Fraser River, before the close of the present fishing season, and to establish a fish-breeding station there."

Mr. Anderson reported to 31st December, 1878.

* * * * *

The several Orders in Council for the regulation of the fisheries in this province, with subsequent modification by telegram, were duly promulgated as soon as received. Some verbal alterations in the proclamation will be necessary; and these, with such suggestions in regard to the general provisions of the Fishery Act as required to be modified to suit the circumstances of this province, form the subject of a special report which will accompany this, in accordance with the instructions contained in your circular letter of the 7th December last.

NASSE RIVER.

This stream which discharges into the arm of the sea, terminating in the Observatory Inlet of Vancouver, close to the Alaska boundary, is of some magnitude, and with steamers of light draught might be navigated for twenty miles or more from its entrance.

In the lower part the mountains rise, generally, abruptly from the shore. Some miles higher up they recede in parts, leaving flat alluvial banks of moderate extent. The fishing station of Mr. Robertson, the only station at present established here, is situated on the right bank, close to the main oulachon fishery of the Indians, who, during spring and early summer, resort thither from many quarters, and in large numbers. Three miles above this point Mr. Robertson has a house with a considerable patch of land under cultivation, where, during the period of my visit, most of the ordinary culinary vegetables were growing in the most flourishing manner. There is a small steam saw-mill here; the timber sawn (of which there is a copious supply) being chiefly, if not entirely, the spruce, or menzies fir, a wood easily wrought, and of excellent quality. The main buildings connected with the fishery are, however, at the lower station, and I was much struck with the evidences of industry and energy which were there apparent. With very moderate aid from white and skilled labour, though when necessary with the hired assistance of the Indians of the neighbourhood, Mr. Robertson had succeeded in erecting since last year, besides other buildings, a large and substantial structure for present and future operations. This building, 84 feet in breadth and, with the extension of the lower portion, upwards of 100 feet in length, was two stories in height, and in every part well finished and nearly glazed. Attached to the lower part was an extension containing the steam apparatus for heating the vats for extracting the oulachon oil, a business prospectively of much importance. On the whole, I was much pleased with my inspection, and from the interviews which I had with the native chiefs, I concluded that Mr. Robertson, who holds a commission as Justice of the Peace, conducts his business, with relation to those around him, with commendable prudence.

The oulachon, though frequenting some other rivers along the coast, including the Fraser River, is no where found of so fine a quality as in the Nasse. Of this fish the *Phaleichshys*, or *Osmerus Richardsonii*, I have already spoken in previous reports. The shoals, on their way to the spawning beds, reach the entrance of the Nasse about the end of March. The river thenceforward, till the termination of the season, is crowded with the ascending fish as far as the tide water extends—the limit of their spawning-ground. This point on the Nasse River is some twenty miles above the mouth. After spawning, the fish return to the ocean in the ordinary way; but no knowledge of their resort during the interval of their visits is obtainable.

The following varieties of salmon frequent the Nasse:—

1st. Run about 20th April to 10th June; 27 to 48 pounds weight; called by the natives *yee-agh*, and corresponds apparently with the *saw-quai* of Fraser River.

2nd. Run about 20th June; 7 to 12 pounds; called by the natives *missaugh*, and correspond apparently with the *suck-kâi* of Fraser River.

3rd. Run about 20th August to end of September; about 15 pounds; called by the natives *mi-llaet*, and corresponds apparently with the *co-hues* of Fraser River.

4th. Run, a fine silver salmon of from 10 to 12 pounds weight succeeds for a short interval. This variety was called by the natives *you-agh*. The hook nosed salmon, (s. canis), locally called *kai-neesh*; and the *stum-maun* (*hun-nun* or *hone* of the Lower Fraser) succeeds in the late autumn. The former of the last two varieties is a fish of no commercial value, though dried by the natives for their own use, and when caught in the salt water before entering the rivers to spawn, not unpalatable to more fastidious tastes. The *stum-maun*, a white-fleshed variety last mentioned, though palatable when fresh, is not valued for curing; though some were, I have understood, canned at the Skeena fisheries during the past season, injudiciously, I think, if intended for market. The first four varieties, which may be regarded as the staple salmon products of the river, are fish of superior quality, and well fitted either for canning or salting.

In addition to the true salmon that ascend the Nasse there is a variety of sea trout of considerable size (10 or 12 pounds or more) which enter the river late in the season, and are caught near the outlets of the interior lakes in early spring. These fish, known here as *la-âth* and corresponding apparently with the *tays-lay* of the Upper Skeena, are of fine quality; and if procurable in sufficient abundance would be valuable for market purposes. Continuing to feed voraciously after they leave the salt water, these trout (unlike the salmon in both respects) do not deteriorate as they ascend. Unlike the salmon of these waters, too, they return to the sea after spawning, after the fashion of the genus elsewhere.

I was particular in my inquiries as to the condition of the spawning beds on the upper waters; I was glad to be assured by Mr. Robertson that, from his own personal observation, great care is extended by the natives towards their protection. No one is allowed to fish within certain limits; and several circumstances were mentioned by Mr. Robertson, all tending to show that the Indians both understand and appreciate the importance of preserving the nursery grounds from injury.

* * * * *

SKEENA RIVER.

This stream, the mouth of which is about 50 miles south of Fort Simpson, and about 500 from Victoria, is of somewhat greater volume than the Nasse. Circumstances did not permit me to ascend it as in the other case, and my visit was confined to the entrance, near which two canneries are established. The Skeena, however, has always been regarded by the agents of the Hudson's Bay Company as one of the most prolific streams of the north-west coast, and one less subject to those vicissitudes of supply which have always been characteristic of the Fraser. Indeed the *Babine Post*, situated on Lake *Nâ-tâ* at the head of one of the tributaries of the Skeena, has always been a staple mart where large supplies of dried fish were procurable, for the supply of other posts, less fortunately situated, on the head waters of the Fraser, not far distant. Twenty or thirty thousand salmon, or more if required, have thus been annually procured by the company for many years, bought from the Indians out of their enormous superfluity. The quality of these fish, too, and their richness, have always been conspicuous, when compared with the salmon caught in a corresponding position in the waters of the Fraser. This difference is ascribable, doubtless, in part to the fact that their travelled course has been shorter; but there are grounds, too, for believing that their condition was originally better.

The success of the canneries at Skeena mouth so far has not been conspicuous, though one of them, it is true, has been only recently established and cannot therefore be fairly judged. Some Indian complications, too, which I have explained elsewhere, and which are now under the consideration of the Indian Department, caused partial impediment during the past season, the recurrence of which it is to be hoped will be averted for the future. I cannot conceal my opinion, however, that

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much of the ill success complained of may be ascribed to the line of proceeding adopted. My recommendation would be that the main stream of the Skeena itself should be regarded as the chief source of supply, with the certainty of obtaining fish of the choicest quality only. The small streams in the neighbourhood, however, which during the past season appear to have been the chief source of attraction, yield only varieties of a comparatively inferior description; and there are other objections, too, which, under fuller information, I shall hereafter make the subject of a special report.

The varieties of salmon resorting to the Skeena are identical, as far as I have been able to ascertain, with those found in the Nasse.

12. Reverting to the Fraser; as will be perceived by the return, the business of this section has materially increased since last year. Three additional canning establishments have been in operation, making eight now in existence between the vicinity of New Westminster and the mouth of the river: the erection of another, I am informed is in contemplation. The subjects referred to in the Commissioner's letters of the 28th May, have received due attention. With regard to one of these (the question of the disposal of the saw-dust at the mills) I am happy to say that the mill-owners at once evinced their readiness to comply with their regulations, and all cause for complaint has ceased. These mills are worked by steam, and much of the refuse is consumed in the furnaces—the superfluity being employed for embanking or road-making around the premises, or, where not required for these purposes, will be otherwise disposed of. I am glad to have the opportunity of testifying to the alacrity with which the gentlemen in question have met the views of the department when signified to them by the local officer, Captain Pittendreigh. I had some misgivings about the disposal of the offal from the canneries, lest possibly some evil effect as regards the public health might arise—though as I last year remarked, the greater portion rapidly disappears before the innumerable small fishes. I accordingly wrote recently to Dr. McInnes, the member for the district, suggesting measures whereby possibly the refuse of the canneries might be profitably utilized, as I am told is now done on the Columbia River. After inquiry, Dr. McInnes writes to me that from all he can learn this measure would not be at present practicable; he agrees with me that for sanitary, if for no other reasons, it would be impracticable to dispose of the offal by burial on shore, and suggests as the alternative that the fish curers should be required to convey their offal into mid-channel, whence it would be speedily carried out seaward and cause no detriment. The cannery proprietors, with whom, at my request, Dr. McInnes consulted, concur in this view, so that there will be no difficulty in securing its general adoption.

13. It would be superfluous for me to attempt to describe the various conditions of a canning establishment, as organized for the prosecution of the salmon industry in this province. I may, however, briefly state that many ingenious devices, with labour-saving apparatus of divers kinds, are eagerly adopted as necessity suggests. It is, of course, only by an organized system of action, and the minute subdivision of labour, that the operations of the industry, from the cutting up of the tin plates, the shaping, the soldering, up to the final labelling of the cans after the insertion and cooking of the contents, can be profitably or successfully carried on. It is pleasing to witness the order and regularity with which these various processes are accomplished; and I cheerfully bear witness, after having visited the various canneries in succession, to the prudent regulations which are obviously in force, and the admirable measures to secure cleanliness that prevail. The structure of these establishments, too, and their various internal appointments, bear evidence of confidence in the permanency of the business. There is no appearance of make-shift contrivance to serve a temporary purpose, but everything wears a lasting and substantial air. The importance of the industry, from an economical point of view, and in view of its future extension, cannot be disregarded. Already, on the Fraser alone, nearly 2,500 men are employed during the fishing season. Among these there is a proportion of young Indian men, who are valuable as assistants in the fishery and readily acquire the art. In the indoor operations a good many Chinese are employed. The services of these last are of special value in the canneries. In consequence of a local law

which was passed during the last session of the Provincial Legislature, some difficulty with regard to the employment of the Chinese was at one time apprehended; and the cannery proprietors addressed to you a memorial on the subject, of which a copy was transmitted to me. That document puts the question very fairly before you; and on my return from the north I also addressed the department on the subject. I am happy to add that the evil consequences at one time apprehended were averted.

HERRING FISHERY.

14. As mentioned in my report of last year, a quantity of these fish were put up, by a firm in New Westminster, in barrels for exportation. The result was unfortunate: through some defect in the packing process the whole lot spoiled and was unmarketable. I am persuaded, however, that it only requires a due knowledge of the art to prepare these fish profitably for market in the usual way. Formerly it was contended that the herring of this coast were too dry to be worth the trouble of packing; now it is asserted they are too fat to undergo it. In the one case, caught out of season, they were doubtless worthless; in the other, caught on the banks while in their prime, they are, in my opinion, a superior fish, fit for curing in any way. I think public attention is now turning towards them, and that a more successful attempt during the coming season will bear me out in the opinion I have always entertained. Then, as I have elsewhere remarked, an industry of boundless extent will become developed.

Meanwhile, failing their more legitimate application, the herrings have been recently turned to account in another way. This is the extraction of their oil for commercial purposes. Late in November, I was notified by the fishery officer at New Westminster, that two persons, Messrs. Hanson and Rouster, had commenced a herring fishery in Burrard Inlet, in that neighbourhood, and were extracting the oil, preserving the refuse for sale as manure. In twenty-five days they had succeeded in getting 1,500 gallons of oil, reported to be of fine quality, and valued at a somewhat higher rate than the ordinary fish oils. I have not yet obtained the return of the whole proceeds of the undertaking up to the end of the year, but it will doubtless come to hand before the closing of the general abstract, which will accompany this.

The establishment of these new adventures is not a stationery one, but being on a kind of scow or flat boat, is movable from place to place. The apparatus is described as consisting of a steam boiler, which supplies steam to four vats, in which the herring are steamed and afterwards pressed by means of powerful screws attached to the vats. The oil flows out through perforations in the bottom. The whole outfit is estimated to cost about one thousand dollars. Messrs. Hanson & Rouster, in addition to their own labour, employ five men, and use one boat with 80 yards of net.

Captain Pittendreigh, who supplied the above particulars, adds in his report: "The herrings I saw yesterday (*i.e.*, at Burrard Inlet), were of fine quality, and equal to any on the Atlantic sea-board." The latter conclusion may be fairly questioned, but while unprepared to admit its correctness, I am equally unprepared to controvert it.

Comments of Inspector Anderson on a Resolution passed by the British Columbia Board of Trade.

With reference to the accompanying copy of a resolution of the British Columbia Board of Trade, the undersigned respectfully remarks as under:—

Regarding the clause numbered 1 on margin of resolution.

1. The undersigned would feel relieved of a delicate responsibility were he assured of the advice and co-operation of others, forming a board as suggested, in cases when the granting of additional licenses for canneries in localities near which other canneries have already been established had to be considered.

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2. In the formation of this board he would gladly accept the co-operation of the Indian Commissioner, Mr. O'Reilly—and he suggests that, in the event of the occasionally unavoidable absence of that gentleman, the Indian Superintendent (Dr. Powell), should be authorized to act as his substitute. This to avoid the possible stoppage of business.

3. The selection of a third party by the Board of Trade is nowise objectionable provided always that the party so selected be nowise interested, directly or indirectly in fishing operations already in progress, or the establishment of which may be in contemplation.

4. The advisement and consent of the board to be necessary only in cases of application for new licenses as mentioned in par. 1 of this report, and not to extend to the signature of licenses—such signature to continue with the inspector of fisheries as at present.

With reference to the clause numbered 2 on margin of resolution :—

The preceding provision sufficiently guards against the over issue of licenses; while the "tidal limit" provided by the Order in Council, as modified, is definite.

With reference to clause numbered 3 on margin of resolution :—

The undersigned considers it expedient that parties seeking to establish new canneries on rivers and in places where salmon canneries have already been established should be required to give public notice as proposed.

ALEX. C. ANDERSON,
Inspector of Fisheries, B.C.

VICTORIA, B.C., March 9th, 1883.

SIR,—I return the copy of the resolution of the Board of Trade concerning the issue of salmon-fishing licenses, with remarks appended.

It would be a grievous pity to fetter the business with any restriction beyond what I have suggested; and it is important to guard against any attempt to establish a monopoly of privilege, to the exclusion of legitimate investment in a growing and valuable industry.

As regards the signature of licenses in ordinary cases it would require to proceed without the sanction of the board, whose functions, if established, should be confined solely to the consideration of *new* licenses for localities already partly occupied, else all progress will be impeded.

I have the honour to be, sir,

Your obedient servant

ALEX. C. ANDERSON,
Inspector, B. C.

W. F. WHITCHER, Esquire,
Commissioner of Fisheries,
Ottawa.

Resolved :—

1. Whereas under the existing fishery regulations, salmon fishing licenses are issued in this province by the Inspector of Fisheries, who has the power of regulating the number of licenses applicable to any particular river or fishing place;

2. And whereas in the opinion of this board, it is not considered to be conducive to the fostering of the fishing industry that such discretionary power should be entrusted to one person, therefore this board respectfully recommends that the Hon. the Minister of Marine and Fisheries should amend the regulations in this particular, by substituting for the Inspector of Fisheries, a board of three, viz., Inspector of Fisheries, Indian Commissioner, and a third person to be selected by the B.C. Board of Trade, and which board should have the power of determining the fishery limits of each river or other fishing place in this province and of regulating the number of licenses to be issued.

3. The Board also recommends that applicants for new licenses to fish in rivers, places where fisheries have previously been established, shall be required to give

notice of their intention to apply for licenses by advertisement in a local paper and the *Government Gazette*. Such notices to be inserted for 30 days prior to application being made.

EDGAR CROW BAKER,
Secretary.

PROVINCE OF BRITISH COLUMBIA, GOVERNMENT HOUSE,
VICTORIA, 20th Feb., 1882.

SIR,—I have the honour to inclose herewith a pamphlet which I have had forwarded to me, viz., "Report on Salmon Culture by the British Columbia Board of Trade," which deals with so important a subject to both the immediate and prospective interests of the province that I am glad to have an opportunity of supporting to a certain extent the views enunciated.

I remember some years since when I had the honour of a seat in the Senate of Canada, I with others, first brought the matter of the necessity of some protection being given to salmon in this province by means of the enforcement of certain regulations with regard to the methods and seasons of taking them, and I was glad to find that the importance of the question was fully recognized by the Department of Marine and Fisheries, and that in pursuance of our representations certain protective steps were taken. Those steps were in my opinion, if properly enforced, sufficient for the purposes required. It was arranged that salmon should not be taken for canning or commercial purposes generally except in such parts of the rivers as were affected by the tides, and that there should be a close time of 30 hours in each week (not 24 hours as stated in paragraph 3 of the pamphlet) during which no nets of any description should be cast or drawn in the rivers. Some other minor regulations need not be referred to.

But last summer this close time was done away with on the Fraser River between the 10th day of July and the 25th August, during in fact the whole time in which the principal and most valuable run of fish continues. So enormous was the run of fish that a number of boats (which under ordinary circumstances would have been employed) were thrown out of work, a smaller number being able to secure all the fish that could be utilized by the canneries, and consequently it is quite probable that a perfectly sufficient number of fish for breeding purposes ascended to the higher reaches of the river. But this would only be the case in occasional years, and it does seem to me that it would have been better to allow the fuller measure of protection to the salmon to remain in force instead of giving way to representations of those who can only be looked upon as interested parties. I have been assured by the very efficient Inspector of Fisheries for the province (Mr. Anderson) that doing away with the close time was a tentative and not a permanent measure, but I must say I am distinctly opposed to a tentative measure which can and probably will ultimately prove disastrous in its effect.

As I have already had the honour to say, I think that up to the present time the regulations now in force would be and perhaps have been sufficient to secure the ends in view, but now, owing to the success which has attended the enterprise of those who first established canneries on our rivers, and owing to the largely increased and increasing demand for and consumption of canned salmon in all parts of the world, it is perfectly certain that many new establishments of this sort are in contemplation. The question at once arises, how are such establishments to be limited in number, and how is some supervision over them to be established? This question is one to be very cautiously treated. It is necessary to try and protect the future interests of the provinces of the Dominion by providing against undue present destruction of fish, it is necessary to remember and provide for the present and future needs of those native Indians of the province whose principal staple food is salmon, and at the same time it is necessary not to throw undue or vexatious difficulties in the way of those who are ready to expend their time and capital in the establishment of canneries, which canneries are of great economic value to the province, employing as they do during their season a large amount of well paid labour.

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The issue of licenses to those engaged in this business, as suggested by the Board of Trade, would appear to me as ready and efficacious a way of obtaining control over them as can be proposed.

Such control is necessary to prevent over-fishing of the different rivers and irregularities generally, to secure for the statistical purposes correct returns from the different canneries, and to guard the natives in their prescriptive rights of fishery.

With the existing regulations properly enforced, and the additional safeguard of a system of license, I trust that we may expect that the salmon fisheries of British Columbia will shortly be largely extended in scope and productiveness, and will be as lasting as they are valuable.

I hope I may be allowed to point out that the work of the Inspector of Fisheries (Mr. Anderson) is rapidly increasing. He has taken much interest in it, and is decidedly a valuable officer in his position. If any such thing is in contemplation, I am sure I am right in saying that an increase in his small salary is fully deserved.

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

CLEMENT F. CORNWALL,
Lieutenant-Governor.

REPORT ON SALMON CULTURE BY THE BRITISH COLUMBIA BOARD OF TRADE.

Your committee appointed to report upon the question of recommending the Government of the Dominion to enact regulations for the proper protection of fisheries in this province, subjoin the following as their views on the subject:—

THE FISHING INDUSTRY.

1. The importance of the fishing industry to the Dominion and British Columbia cannot be over estimated, and the growth of it, as evidenced by the fact that in 1880, the value of canned salmon put up in the province was \$305,000, while in 1881, it had increased to \$875,000, promises to be so rapid that your committee recommend that while the industry is still young, the rivers well stocked with salmon, and apparently no injurious diminution of the fish supply yet experienced, well considered and firm steps should be taken to protect the rivers from over-fishing, and thereby place this valuable industry on a secure and lasting basis.

Compared with the Columbia and Sacramento, the rivers of this province are small and their capabilities as fishing grounds are very limited. On the smaller streams utter exhaustion of the fish would soon ensue from over-fishing, while in the Fraser and Skeena rivers, the supply would be so diminished as to seriously injure the industry, which under proper protective measures, should not only continue as a means of employment to a very large portion of our population, but be developed on a far more extensive and permanent footing.

The evils of over-fishing are so forcibly set forth in a letter addressed by Mr. Samuel Wilmot to Messrs. B. Haigh & Sons, under date the 19th November last, and published in the *Daily Colonist* of the 12th instant, that the committee consider it right to append it to this report.

NEW WESTMINSTER, B.C., 30th December, 1881.

To the Editor :

DEAR SIR,—The inclosed letter from S. Wilmot, Esq., Newcastle, Ont., is a reply to ours asking for information about the rearing of the young salmon in our experimental hatchery. It is so interesting that we obtained Mr. Wilmot's permission to publish it.

Newcastle, Ont.

Yours faithfully,

B. HAIGH & SONS.

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NEWCASTLE, ONT., 19th November, 1881.

Messrs. B. HAIGH & SONS, New Westminster, B.C.

GENTLEMEN,—Your favour of the 26th October last reached me on the 15th inst., being somewhat delayed in going to Ottawa before arriving here.

You ask me for information concerning the artificial propagation of salmon, and as to the best method of rearing the young fry previous to the time of their migration to the ocean. I am well aware of the immense benefit now derivable from the salmon traffic in your province, and can therefore readily understand why persons like yourselves who are largely engaged in the preserving of that fish should desire to encourage any measure that would have a tendency to keep up the standard in number (if at all possible) of this very valuable source of commerce in your country.

I do not desire to speak disparagingly to you on this subject "of keeping up" the quantities of salmon that are at present so plentiful with you, but I fear that unless you exert yourselves most earnestly and perseveringly to stay to a certain extent the immense slaughter of salmon now carried on in your waters, you will, before many years pass by, find yourselves in precisely the same condition that we are in here: almost denuded of that magnificent fish.

I desire to mention to you briefly my own personal knowledge and experience in relation to salmon here in my short lifetime. My father settled upon this farm where I now live, and which I own, in 1816. He selected it more particularly because a small stream or creek (as we call them here) ran through the property which at certain seasons of the year was literally teeming with salmon, almost crowding themselves (during certain runs) out on the banks of the stream. The Indians (the place then was almost a wilderness) caught these fish in vast numbers; they were known to be sold for a York shilling (12½ cents) a dozen. I was born in 1822; have lived here ever since; during my boyhood I thought nothing of spearing a dozen or two salmon of a morning before commencing my work on the farm, which in those days was not 7 or 8 o'clock, but shortly after daylight. I have known of 3,000 salmon being speared with canoe and torchlight in one night at or near the outlet of the creek into Lake Ontario during a freshet in the fall of the year. There were in the fall of 1836 within a distance of half a mile of the stream on my farm, and within a few rods of my door, 500 salmon speared, my brother and myself killing 90 of them; there were thousands of fish passed by us on account of a large freshet then running in the stream, which prevented our seeing only a partial number within range of spearing. In fact, this and all other streams emptying into Lake Ontario from Niagara to Kingston were in those days alive with salmon in the autumn months. Torchlight, spears, nets, and every other engine of destruction then in use (and they were then all very rude in their construction) were wantonly and I may say barbarously used by the settlers, all trying to get the greater number of fish. Our streams were all very small (mine could be jumped over in many places by a man), but I verily believe that salmon were as plentiful in them then according to the size of the stream as they ever were in any of your waters of British Columbia. Now, let me relate the state of things as far back as in 1868. Barely a salmon could then be found in any of these same streams; over-fishing, constantly killing them on the spawning grounds, trap-net fishing along the shores of the lake and estuaries of the streams, excessive demand and greed for the fish had exterminated them in all our waters. This has also been the case in a large proportion of the rivers in Quebec, and also to a certain extent in a great many of the rivers in the other maritime provinces.

Now you are having a "merry life" in your new province with the salmon; but I fear it must be a "short one," and a much shorter one than ours has been; for with the increasing population of the earth, with their craving demand for supplies of fish-food, the immense capital invested in capturing salmon, the improved methods in the way of nets and other engines used in killing them; all these things (with what I have witnessed in my own province here) prove to my mind, at least, that unless the most stringent remedial measures are adopted in your province, your present traffic in salmon will be of short duration, and will be brought to a close

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in a much shorter period of time than ours has been. It may be asked what should be the remedy to prevent this reasonably expected loss of a great commercial wealth? I may answer that much discretion and wisdom will have to be shown by those who are engaged in the trade, and by assisting the proper authorities in maintaining proper fishing regulations, set apart a proper close season for the natural spawning of the fish, and see that it is kept to the very letter; aid nature by every possible means, and subsidize upon an extensive scale the natural methods of reproduction by the application of the most improved means of artificial propagation. There are, no doubt, immense numbers of small tributary feeders to your large rivers now unfrequented by salmon, which might be made the nurseries for millions of young salmon, if placed there, thus extending, as it were, the "branches of the tree for the rearing of more fruit," to be brought to maturity afterwards by the unlimited supplies of food in the great expanse of the ocean.

I have digressed perhaps too much from the main object of your inquiry; but I have inferred from the request in your letter to me that you take a deep interest in all that pertains to the natural and artificial propagation of salmon; hence my somewhat lengthy letter in reply. In answer to your direct question "whether should the young fish when they are old enough to take care of themselves be turned into the headwaters of the river, or ought they to be confined in ponds fed by living water until the time arrived for their dismissal to the ocean," my experience tells me that it is next to an impossibility to rear young salmon up to the stage of "smolthood" (that is, the period when they commence their migration) in large numbers in ponds or confined limits. The system may do well enough on a very small scale, and for purposes of observation, but when "millions" are to be hatched out it is impracticable. Young fish as well as old ones require food, and of the proper kind. They also require large supplies of highly aerated water, which as a rule cannot be obtained in ponds or confined limits. They also feed largely in their natural abodes on insect life, the larvæ of flies, and crustaceans, which in the gravelly bottomed parts of rivers where the young salmon are hatched out, are always found in great abundance. In ponds, artificial feeding, or animal food, in the way of livers and such like, must be given them, and, as I before stated, when you have "millions" to care for, large quantities of this food must be prepared for them by pounding, grinding or some such means, in order to make it sufficiently small for the small fry to take in their mouths. This with a few thousands is laborious work, and still worse and more difficult is it to get this food at all times, unless the work is carried on in the immediate vicinity of some large town or city, where the offal from butchers' stalls can be readily and regularly had (for it must always be fresh or at times thousands of your young brood will turn sick and die from eating partly decomposed and diseased livers) and taken from healthy animals.

I have lost thousands of young fry from feeding upon what I afterwards found out to be diseased livers of cattle, which, at the time is not easily discernible, and not until perhaps thousands of your brood of the fry have died. I have no hesitation in advising you or any other person (on this subject) not to think of keeping large quantities of salmon fry in small quarters where it will be necessary to feed them artificially. At least two seasons will transpire before young salmon will put on the livery of the "smolt" and migrate to sea. If a few months keeping would bring them to this stage it would be different; but two long years or seasons of confinement and artificial feeding will prove unwholesome for the fish and unprofitable to those persons engaged in the work of rearing salmon.

I have been getting for some years back a number of the "ova" of the California salmon from the McLeod River, a tributary of the Sacramento. They are known as the "salmo quinnat" to distinguish them from our Atlantic salmon, the "salmo salar." The "quinnat" are more greedy feeders when young than the "salar" and are a much coarser fish in every way, not liked so well for the table as they are for canning purposes. The introduction of them here by myself and by Professor Baird in the Eastern States has not proved very satisfactory so far. They are not showing themselves in our waters as numerous as we had expected they would. I am now trying the planting of some 350,000 of the "quinnat" in the great St. John

River in New Brunswick. They will be distributed in the upper waters of the river some 200 miles from tidal water. The native "salar" of that river have become very scarce from the means alluded to in the former part of this letter. The St. John River many years ago was overflowing with salmon just like yours, but the slaughter of the fishermen and the improper times of killing them have well nigh exterminated them from the upper waters there.

I may state for your information that our Dominion Government is quite in advance of almost any other on this continent or the old world with regard to the artificial propagation of fish. I have now erected for the Government eleven fine extensive fish breeding establishments in various parts of the Dominion. Ten of these are for salmon culture more particularly, each having a capacity of from three to six millions of eggs. The eleventh one is more particularly erected for breeding the "corregoni" (our whitefish); its capacity is some sixty millions of eggs, or even more if procurable. I am now putting up the twelfth building on the Restigouche, size 40 x 100, which will accommodate 8,000,000 or 10,000,000 of salmon eggs. We have at the present time about "thirty millions" of eggs of the salmonoid family laid down in the troughs of these eleven hatcheries. We have turned out from these nurseries since their commencement (some of them being in operation only one year, others two, and so on) "ninety-seven millions" (97,000,000) of young fish "all of the salmon family." This number has not been approached by any other country, unless shad are counted in, which are hatched out in about 3 or 4 days, whereas the salmon family take from four to six months in their incubation. I simply mention these figures to show you that whilst France, Germany, England and the United States are being heralded by their institutions and Government organs as doing wonders in fish culture, Canada has been quietly, yet surely, outdoing them by all odds.

Our last annual grant for carrying on this work including keepers' salaries, general maintenance and the erection of two new hatcheries, last year was \$28,000. I am told that the United States Government gave \$150,000 for a like purpose last season.

I should be very much pleased to see our work extended to your province * * * A small grant of \$3,000 or \$4,000 would put you up a hatchery with a capacity of six to ten millions of eggs. This sum would cover everything, even though a competent officer were sent for the purpose of constructing it. * * * When I say \$3,000 or \$4,000 I mean a building of first-class style in appearance, with every facility and comprising in it all the latest and most approved methods for artificial propagation, with apparatus, etc.

If you (the parties engaged in fishing operations) are going to put up an establishment on your own account be very careful in your selection of a site and in the manner of putting it up, as almost everything relating to it is in selecting a good convenient location and in fitting up the nursery with good apparatus and a systematic way.

I have now written you on this subject of fish culture somewhat lengthily. I hope it may interest you, not tire you. I wish you every success in your undertaking.

With best respects, I am yours, very truly,

SAMUEL WILMOT.

Food of the Indian Population.

2. Another important reason for guarding against a diminution of the salmon supply exists in the fact that a large Indian population depends upon it as its main article of support. This does not apply only to the Indian residents on rivers, but also to those on the coast, on islands, and in parts of the interior, as the river Indians catch and dry large quantities of salmon which they barter with other Indians who cannot obtain this essential article for themselves, and should salmon become extinct in the rivers, or be so seriously reduced in quantity as to cause destitution among the Indian population, it would be a serious matter for the Government to provide means of support for those Indians.

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3. The Committee, in view of the foregoing, recommend that the Dominion Government be urged in the strongest manner possible, to adopt immediate and effective measures against over-fishing and the consequent inevitable diminution and possible exhaustion of the salmon fisheries.

Regulations have already been made by which a close time of 30 hours in each week is prescribed, but the opinion of many fishermen and persons conversant with the habits of salmon is, that those regulations do not afford the requisite protection, owing to the uncertain and irregular movement of the fish towards the spawning ground. To extend the close time would be highly detrimental to the fishing industry, as the runs of fish are limited to short periods, of which canneries must take the utmost advantage in order to make the business profitable.

Hatcheries, when fully established under government supervision, would probably be the means of maintaining the salmon supply unimpaired; but no hatcheries have yet been established in the province, and even were they established at once, some years would elapse before they could be effective.

As the regulations pertaining to a close time for fishing do not afford the protection necessary, and the establishment of hatcheries has not even been considered by the government, the committee are of opinion that a scheme (having due regard to the vested interests) of granting licenses, by which the number of fisheries in the different rivers and fishing places would be regulated and placed under the control of the government, would best meet the case until hatcheries of the necessary productive capacities have been established.

The committee suggest that:—

(a.) The power of granting licenses should rest with the board consisting of the Lieutenant-Governor, the Inspector of Fisheries for the province, and the Indian commissioner;

(b.) That fishing with nets, seines, or other appliances should not be permitted in any of the rivers, or approaches to rivers, or inlets of the province except by license, and that the infringement of any of the regulations which may be framed should entail confiscation of fishing appliances, besides severe penalties;

(c.) Licenses to be granted yearly;

(d.) The cost of licenses to be a nominal sum, say not exceeding \$20 or \$25, for each establishment.

Victoria, B.C., 20th January, 1882.

MATTHEW T. JOHNSTON,
THOMAS EARLE,
J. H. TURNER,

Committee.

The foregoing report was adopted at a special meeting of the board on the 13th January, 1882.

(Signed)

EDGAR CROW BAKER,
Secretary.

On the 26th November, 1888, the following regulations were adopted:—

SALMON FISHERY.

1. Fishing by means of nets or other apparatus without leases or licenses from the Minister of Marine and Fisheries is prohibited in all waters of the province of British Columbia.

Provided always that Indians shall, at all times, have liberty to fish for the purpose of providing food for themselves, but not for sale, barter or traffic, by any means other than with drift-nets, or spearing.

2. Meshes of nets used for capturing salmon shall be at least six inches extension measure, and nothing shall be done to practically diminish their size.

3. (a.) Drifting with salmon nets shall be confined to tidal waters, and no salmon net of any kind shall be used for salmon in fresh waters.

(b.) Drift nets shall not be soused as to obstruct more than one-third of any river.

(c.) Fishing for salmon shall be discontinued from six o'clock a.m. on Saturday, to six o'clock a.m. on the following Monday, and during such close time no nets or other fishing apparatus shall be set or used so as to impede the free course of fish, and all nets or other fishing apparatus set or used otherwise shall be deemed to be illegally set and shall be liable to be seized and forfeited, and the owner or owners or persons using the same shall be liable to the penalties and costs imposed by the Fisheries Act.

4. (a.) Before any salmon net, fishing boat, or other fishing apparatus shall be used, the owner or persons interested in such net, fishing boat or fishing apparatus shall cause a memorandum in writing setting forth the name of the owner or person interested, the length of the net, boat, or other fishing apparatus and its intended location, to be filed with the Inspector of Fisheries, who, if no valid objection exists, may, in accordance with instructions from the Minister of Marine and Fisheries, issue a Fishery license for the same, and any net, fishing boat, or fishing apparatus used before such license has been obtained, and any net, fishing boat or fishing apparatus used in excess or evasion of the description contained in such license shall be deemed to be illegal and liable to forfeiture, together with the fish caught therein; and the owner or person using the same shall be also subject to fine and costs under the Fisheries Act.

(b.) All salmon nets and fishing boats have the name of the owner or owners legibly marked on two pieces of wood or metal attached to the same, and such mark shall be preserved on such nets or fishing boats during the fishing season in such manner as to be visible without taking up the net or nets; and any net or fishing boat used without such mark shall be liable to forfeiture.

5. The Minister of Marine and Fisheries shall, from time to time, determine the number of boats, seines, or nets, or other fishing apparatus to be used in any of the waters of British Columbia.

TROUT FISHERY.

No one shall fish for, catch, or kill trout from the 15th October to the 15th March, both days inclusive, in each year.

Provided always that Indians may, at any time, catch or kill trout for their own use only, but not for the purpose of sale or traffic.

Resolutions passed the British Columbia Board of Trade, on the 22nd March, 1888, representing a necessity for additional protection. The supply of salmon on the Fraser River was threatened with exhaustion, owing to over-fishing, and it was urged that more stringent regulations than the existing ones were needed in order to preserve this industry and avert the dangers which already threatened the Sacramento and Columbia rivers. The board also recommended that some restriction be placed on the export of fish. After carefully considering the matter, the regulations of 26th November, 1888, were submitted to, and concurred in, by the Inspector of Fisheries, resident in British Columbia, and subsequently were approved by the Governor General in Council.

Objections were at once presented by the Board of Trade, and by others employed in canning on the Fraser River. These objections were as follows:—

1. Cannors object to fixing the mesh of salmon nets at 6 inches, and assert that this is too large for practical purposes, owing to the average small size of some species of salmon which enter the Fraser River, and they claim that it should be fixed at 5½-inches. Although a mesh of 6 inches might appear to be somewhat large for certain kinds of salmon, this measure was deemed too small, since it would kill large numbers of undersized fish. When wet, the size of a net having meshes of 6 inches, was practically reduced to 5½ by shrinking.

2. Objection was also taken to the regulation which provided that no nets should be used so as to bar more than two-thirds of a river, it being deemed that such a provision was unnecessary; that fishing could not be profitably carried out

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under it, as fish would have so much room to escape, that there should be no chance of catching any, and that one-third of the river was sufficient for all practical purposes. Leaving two-thirds of a channel of a stream open for the passage of fish is, however, a wise provision. It gives the upper settler a chance of taking a few for themselves, while it permits a reasonable number of salmon reaching their spawning beds. This provision has always been on the statute-books. It formed part of the British Columbia regulations of 1878, and experience had proved everywhere—in England, as well as in this country—that it was necessary. This regulation was also approved by the Inspector of Fisheries.

3. The regulation fixing a weekly close time from six o'clock on Saturday morning till six o'clock on Monday morning, was objected to by the canners, and a return to the old system, from Saturday noon to Sunday night, was demanded. This weekly close time was alleged to be unnecessarily long; it would, it was said, conduce to laziness, gambling, and drunkenness; diminish the profits of all parties, &c., &c. Finally, the canneries claimed that a weekly close time of 36 hours was ample to allow of immense numbers of salmon ascending the rivers to spawn.

It is to be observed that no general close season for salmon exists in British Columbia as in the maritime provinces; fishing is carried on from February till November, and that the weekly close time enacted by the regulation of 26th November, 1888, was the only period during which salmon could avail themselves of a free passage to resort to the upper portions of streams, or visit the spawning beds for the purpose of breeding.

In the maritime provinces, salmon fishing does not last two full months. In addition to a weekly close time of 36 hours, there is a close season of ten months, when no fishing whatever can be carried on, while in British Columbia, with no general close season at all, fishing can be carried on during eight months of the year.

Much attention appears to have been given to the Columbia River during the past years by citizens of the United States in order to arrive at some mode of fostering its salmon fisheries and preserving this valuable industry in that country. The pack on the Columbia River which amounted to only 4,000 cases of 4 dozen cans, in 1866, grew to 629,000 in 1883. The number of fishermen, of fishing implements, and of canneries, correspondingly increased every year, yet the yield has regularly and persistently fallen since 1883, as shown by the following figures:

In 1883	the pack	amounted to	629,000	cases.
1884	do		620,000	do
1885	do		554,750	do
1886	do		448,500	do
1887	do		354,055	do
1888	do		372,000	do
1889	do		328,000	do

or a decrease of nearly 50 per cent, due to over-fishing and want of protection. Columbia River water was noted for the immense volume of its current, its purity and its freedom from sedimentary matter; the only plausible cause for the extraordinary decline of its salmon fishery is over-fishing. In a report presented to the Senate, by Major Jones, United States Army, on the 26th January, 1888, it is recommended "to prohibit all methods of fishing during two consecutive days of each week, during the whole year; thus allowing more fish to reach the spawning grounds and at the same time keeping the market supplied with fresh salmon throughout the year."

TESTIMONY TAKEN BY THE SELECT COMMITTEE OF THE UNITED STATES SENATE ON RELATIONS WITH CANADA.

TESTIMONY OF E. B. BECK, SAN FRANCISCO, SALMON PACKER, (PAGE 126).

By Senator Hale :

Q. How does the salmon compare with the eastern salmon?—A. The Californians say it is the finest fish in the world. The eastern man says it is of no account. That is the way it stands.

Q. Where do you find your market?—A. In the United States and Europe and Australia.

Q. Dealing now with the salmon question, what proportion of that canned salmon product is sent east in the United States?—A. Last year it was probably nearly 600,000 cases, distributed throughout the United States.

Q. What proportion is sent to foreign markets?—A. About 400,000. When speaking of the number of cases, I include the fish also packed in British Columbia; I said, "on this coast."

Q. Where is that fish caught?—A. It is caught in the Fraser River, the Skeena River, and in the inlets.

By Senator Pugh :

Q. Then there is a competing trade between British Columbia and Alaska?—A. Columbia River packs the larger portion of the fish. Columbia River packed last year 435,000 cases. There are other canneries up and down the coast that pack more or less.

By Senator Hale :

Q. By what means do you transport east?—A. By rail.

Q. By what roads?—A. Last year we were able to send by the Canadian Pacific for 95 cents per hundred weight, because they had some concession from the Transcontinental Association whereby they accepted 5 cents less per hundred weight.

Q. What was the result of that in the amount you shipped by that road?—A. We did not ship very much by that road, from the fact that it was handled too often to get the fish there in good order. We preferred shipping in our own way.

Q. So that it was considered that the disadvantage of too much handling offset the reduction in price?—A. Yes, sir. Afterwards the Northern Pacific came into the same arrangement, and all our salmon were shipped from Astoria direct by the Northern Pacific.

Q. Are you making your shipments mainly by the Northern Pacific?—A. Yes, sir; from Astoria to the east.

Q. Will you present to the committee any views that you have upon this business of yours that indicate that it would be in any way affected, or how it is at present affected by our relations, freight or otherwise, with Canada?—A. The Canadian people are very poor, not well-to-do.

Q. You are speaking now of Western Canada, British Columbia?—A. Yes, sir; where I have been more particularly. The consequence is that they have produced in the last five years in British Columbia 800,000 cases, and we have produced 4,200,000 cases of salmon. They cannot use what they produce at all, and so they ship it to England and to Eastern Canada.

By Senator Pugh :

Q. You mean the British Columbians?—A. Yes, sir. They are so poor that they do not indulge in canned salmon; it is a luxury. The consequence is that their catch all goes abroad. We cannot see from our standpoint where we would have any particular advantage in having reciprocity. We have a cannery, as I said, on Fraser River. When we wish to bring that salmon here we have to pay 25 per cent

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ad valorem, which is about 35 cents a dozen; of course we cannot bring it here; we do not want it here, because we can get a better price for our salmon than we get here, from the fact of having no outside competition. In England our salmon stands equal with theirs. We shipped this year to England about 400,000 cases, of which 100,000 cases were packed in British Columbia, and 70,000 cases were sent to Canada East. We did not send a case of American fish into Canada, and never have done so, except when a man wanted a special brand or something of that kind.

Q. Canada is no market for your fish?—A. It is no market for our fish.

Q. Can you see that if you had reciprocity you would gain anything from Canada for any product of your trade?—A. No, sir; their surplus would come here, but there would be no use of our taking our surplus there because they have more of their home manufacture than they can use.

Q. So there would be no reciprocity really?—A. No, sir.

Q. It would be giving an advantage and receiving none in return?—A. That is the idea. In British Columbia there are no large towns. Victoria is the largest town, containing about 15,000 inhabitants. Outside of that the towns are very small places.

Q. Are there any such conditions on the other side of the line, in British Columbia, as exist upon this side, in the way of increased immigration, taking up land, building mills, the introduction of one kind of business and another, such as is going on here? Does that condition of things exist on the other side to any extent?—A. No, sir; the lands on the other side, except in some of the deltas of the Fraser River, Burrard's Inlet, and the Skeena River, and those deltas are very fertile, they are taken up, and there are quite extensive farms or ranges there. But the balance of British Columbia that I have had the pleasure of seeing, I would not give \$1.50 a mile for.

Q. You do not want it?—A. No, sir; not at any price. It has fine lumber interests. The great amount of timber there will naturally attract people there, of course, to turn it into lumber. But independently of that, so far as the salmon-cannery business up there is concerned, there are now more salmon canneries there almost than there are fish. They stick them in there wherever they can. Every man who has an iron kettle, almost, establishes a cannery there, and Senator Dolph can testify that such establishments are scattered all the way up and down the Columbia River. There are some canneries, of course, that are well backed financially and that are doing a good, safe business. On the Fraser River, thirteen years ago, they canned and packed 9,000 cases. In 1883, they packed 255,000 cases. Then they ran down from that to 160,000. Last year they packed 205,000. The fish commissioners of Canada are very strict, and take an account of every man's cannery and just what he does. They don't take his word for it, but they take it for themselves. They are very particular about these things. I don't see any possibility of any great increase.

By Senator Pugh:

Q. Are the British people in Canada doing any business in the salmon trade from British Columbia with Alaskan ports?—A. No, sir; I don't know of a single party up there.

Q. There is no trade between British Columbia and Alaska in fish?—A. No, sir; except last year there was one vessel that came down as far as Burrard's Inlet and took salmon overland by the Canadian Pacific. That was the only one. That was shipped in bond through the United States.

Q. Then that trading on the Pacific coast is confined to Americans almost exclusively?—A. Yes, sir. There have been packed on the Pacific Coast during the last four or five years five million cases of salmon, and of that they have furnished about 800,000 cases.

Q. Who furnished that?—A. British Columbia.

Q. You say that these canneries outside of British Columbia are owned by Americans exclusively?—A. Yes, sir.

Q. And that this product on this coast, outside of British Columbia, is the product of American canneries?—A. Yes, sir; entirely.

Communication from the Chamber of Commerce of Port Townsend, Wash.

CHAMBER OF COMMERCE.

Port Townsend, Wash., May 21st, 1889.

Hon. GEORGE F. HOAR,

Chairman of Senate Committee on Relations with Canada :

SIR,—The Chamber of Commerce of Port Townsend being aware of the great honour conferred on this city by the presence of a Committee of the Senate of the United States on Relations with Canada, are desirous of respectfully asking your attention to a few matters which we deem of public importance to the nation at large, to the Pacific States in general, to the new state of Washington in particular, and in an especial manner to the city of Port Townsend.

Understanding that your committee desire to give especial attention to the fisheries of the Pacific Coast, a subject of peculiar importance to the state of Washington, we gladly avail ourselves of this opportunity to express our views of the value of an industry which, when developed, will prove a source of lucrative profit to our citizens and the means of supplying a cheap and nutritious article of food to our people.

The waters of the North Pacific Ocean, Behring Sea, and the Arctic Ocean, as well as the rivers which run into them, teem with animal and fish life beyond the limit of human calculation; the ocean furnishes whale, walrus, sea-elephant, sea-lions, hair and fur seals, true cod, ling-cod, black-cod, halibut, herring, and other varieties, and the rivers abound with salmon, sturgeon, trout, and other fish of lesser note. The only fisheries of importance yet established are the salmon, of which great quantities are taken and canned for export in the Columbia River, Puget Sound and Alaska. But the great ocean fisheries have not been developed. There are two causes which at present tend to paralyze this business; one is the extortionate price charged by the railroads for transporting fish to the interior and across the continent, amounting at present to nearly prohibitory rates, and another is that the fishermen are disheartened by being prohibited from pursuing their avocations in Behring Sea. They demand that the same rights be given them in the Pacific that they enjoy in the Atlantic, and that the Government, instead of prohibiting them from visiting Behring Sea and taking whales, seals, fish, or any product of the ocean that may yield a profit, should offer every encouragement and inducement for American fishermen to fish and hunt in American waters or on the high seas.

We do not believe that the lease of the "Pribyloff Islands and adjacent waters" ever was meant or intended to mean the whole waters of Behring Sea, but that the limit of one marine league from the shore is the recognized limit, outside of which the waters are known to the civilized world as the high seas, where our citizens should be encouraged to pursue their avocations of fishing and hunting.

It is shown by the report of Government officials in the publications of the Tenth Census that the destruction of fish life by seals, sea-lions, and other animals whose sole food is fish is very largely in excess of the amount of fish taken by the whole of the fisheries of the United States, and to protect these ravenous animals is to cause the destruction of enormous quantities of nutritious food which should be utilized as a means of supporting the lives of the millions of people of these United States.

The chamber of commerce consider that the order of the Government by act of Congress closing the Behring Sea is an act not for the benefit of the people to secure them a cheap article of food, but is for the sole benefit of a single monopoly to enable them to supply articles of luxury for the fashionable clothing of the rich. We believe this act of Congress to be a species of class legislation for the benefit of the wealthy few, and as such is opposed to the principles of sound public policy, and we protest against its further continuance.

We see the anomalous condition presented to us, that while the Government of the United States on the one hand is expending large sums of money for the propagation of fish and encouraging the fishermen of the Atlantic to procure a constant

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supply of food fish for our people, they are at the same time protecting one of the most destructive elements that prey upon these fish, and protecting this element, not for the public good, but for the private gain of a single corporation. Our fishermen ask that they be encouraged and protected in all American waters and on the high seas; and as this chamber of commerce believes that the development of our fisheries will add greatly to the wealth of the nation, while it will afford a valuable supply of nutritious food, we join with our fishermen in urging their request that they may be allowed to take any of the products of the ocean, and that they may go into all American waters in pursuit of their legitimate and honourable business.

The magnitude and importance of the possibilities of the fisheries of the Pacific are not as well understood among the people of the Pacific States generally as those interested of the Atlantic are among the people of the New England States. The cost of transportation to the markets of the interior necessarily limits the fisheries trade to the San Francisco market, where the demand is mostly for home consumption, and to the few towns and cities along the coast. But when the American fisherman can have free access to Behring Sea and all American waters, and are encouraged by the Government as the fishermen of the Atlantic now are, and when the products of these ocean fisheries can be cheaply transported to interior and eastern markets, a trade will be created of great importance to the State of Washington which will prove an important factor in the earnings of the railroad, which by its cheap cost of transportation can secure the carriage of this freight. But to secure this great benefit to our people, a benefit which is now enjoyed by the fishing industries of the Atlantic, the policy of the Government must be changed. Behring Sea must be declared free and open to all our citizens except the adjacent waters to the Pribiloff Islands, which should not exceed in limit the distance from the shores of those islands of one marine league, inside of which limit the seals should be preserved during the months of breeding, as belonging to the rookeries owned by the United States, but outside of that limit the waters should be free to all of our citizens.

OUR RELATIONS WITH BRITISH COLUMBIA.

The Chamber of Commerce also respectfully asks your attention to the relations now existing between this Territory and British Columbia, and the necessity of continuing the present friendly intercourse. On the Atlantic side, after passing the north-eastern boundaries of the State of Maine, the whole region is foreign country. On the Pacific side we find an entirely different condition. Washington Territory till our acquisition of Alaska, was the north-western boundary of the United States as Maine is its north-eastern. But we now find that instead of the whole region north of us being a part of the Dominion of Canada we have the great Territory of Alaska, between which and Washington Territory, the province of British Columbia is, as it were, sandwiched, making it necessary for us to pass through the waters of that province in our intercourse with Alaska. All the vessels carrying freight, passengers and mails, and all tourists have to take the inside passage, and pass through the possessions of a foreign nation.

The interests of the Pacific coast from San Francisco to Alaska are identical; our relations with British Columbia, and in particular with the cities of Victoria, Vancouver and New Westminster, and other places, are most cordial and friendly, and it is the desire of this Chamber of Commerce that these relations be encouraged by our Government for the benefit of our people. The completion of the Canadian Pacific Railroad has been a direct benefit to the people of Port Townsend by relieving them from the extortionate charges with which they have been oppressed by the officials of the Northern Pacific Railroad. A still further benefit is expected will be derived from the construction of the Canadian Western Railway, a corporation created by Act of the Legislature of British Columbia at its session in April, 1889, which, starting from a point in connection with the system of the Grand Trunk Canadian line at Alberta, will pass through the Peace River and Chilcotin region to the Bute Inlet route, crossing at Seymour Narrows to Vancouver Island, thence to Nanaimo and Victoria. It is intended to have a through connection by this route

from Victoria, British Columbia, to Portland, Me. From Victoria it is proposed to cross the Strait of Fuca by steam ferry boats to Port Townsend, and by means of the Port Townsend Southern Road to Portland, Oregon, to secure direct transit for passengers to San Francisco and San Diego, Cal., and with all the continental railroads to the Atlantic.

"But while this chamber of commerce is fully aware of the direct benefit it will be to Puget Sound, and to Port Townsend in particular, to have this system of foreign railroads in competition with the rates now charged by all the American continental lines, they are fully alive to a knowledge of the cause which enables the Canadian roads to offer lower rates than the American, and that cause is the subsidies received from the Imperial Government of Great Britain for steamship lines from Vancouver to Japan and China, which enables them to secure a greater portion of the tea and silk trade, and in reality to secure nearly the entire trade of the Indies. All the great nations of the world—England, France, Germany, Russia, Italy, and others—give generous subsidies to their shipping. The United States alone stands aloof, and, as a consequence, the flag of our country is seldom seen where formerly it ruled, and our commerce is given to the merchant vessels of foreign nations. We believe that if the policy adopted by Great Britain with regard to subsidies should be emulated and adopted by the United States the same beneficial results to our commerce would ensue; and to this end we respectfully ask your earnest attention and co-operation."

There were only three canneries in operation in Canada, during the year 1876, and the number had increased to fifteen in 1878, and the quantity of canned salmon represented by 9,847 cases in 1876, had increased to 203,916 in 1877; an increase of twelve canneries, and of 194,069 cases in the quantity of salmon canned. While the total pack of British Columbia salmon was 9,795,984 cans in 1887, that for 1888 amounted only to 8,883,944; a decrease of 962,040 cans.

Viewing the above facts with alarm, the Minister of Marine and Fisheries believed that he would have been justified in ordering a strict enforcement of the regulations; but having taken into consideration the strong appeals and the arrangements already made for the year's business; he recommended that the coming into operation of the regulations of 26th November, 1888, be suspended until the fishing season of 1890.

This recommendation was approved by Order in Council of 17th March, 1889.

During the month of December, 1889, a delegation of British Columbia cannerymen visited Ottawa, to urge their views touching the regulations of 1888. The delegation, among other matters, urged that no limit be placed upon the number of licenses issued; that the weekly close time be fixed at 48 hours; that the regulation respecting fish offal be not enforced, and that the size of mesh of salmon nets be reduced to $5\frac{3}{4}$ inches. The views of the delegation were submitted for the opinion of the local inspector of fisheries, and after careful consideration of the whole subject, the Minister submitted the following regulations, which were approved by Order in Council of the 14th March, 1890:—

SECTION 1.

Salmon Fishery.

1. Fishing by means of nets or other apparatus without leases or licenses from the Minister of Marine and Fisheries, is prohibited in the waters of the province of British Columbia.

Provided always that Indians shall at all times have liberty to fish for the purpose of providing food for themselves, but not for sale, barter or traffic, by any means, other than with drift nets or spearing.

2. Meshes of nets used for capturing salmon shall be at least five and three-quarter inches extension measure, and nothing shall be done to practically diminish

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their size: provided always that the Minister of Marine and Fisheries may order larger meshes to be used at such times and places as may be in his opinion necessary for the protection of the Fisheries.

3. (a.) Drifting with salmon nets shall be confined to tidal waters, and no salmon net of any kind shall be used for salmon in fresh waters.

(b.) Drift nets shall not be used so as to obstruct more than one third of any river.

(c.) Fishing for salmon shall be discontinued from 6 o'clock p.m. on Saturday to 6 o'clock a.m. on the following Monday, and during such close time no nets or other fishing apparatus shall be set or used so as to impede the free course of fish, and all nets or other fishing apparatus set or used otherwise shall be deemed to be illegally set and shall be liable to be seized and forfeited, and the owner or owners or persons using the same shall be liable to the penalties and costs imposed by the Fisheries Act.

4. (a.) Before any salmon net, fishing boat or other fishing apparatus shall be used, the owner or persons interested in such net, fishing boat or fishing apparatus shall cause a memorandum in writing setting forth the name of the owner or person interested, the length of the net, boat or other fishing apparatus and its intended location, to be filed with the Inspector of Fisheries who, if no valid objection exists, may, in accordance with instructions from the Minister of Marine and Fisheries, issue a fishery license for the same, and any net, fishing boat or fishing apparatus used before such license has been obtained, and any net, fishing boat or fishing apparatus used in excess or evasion of the description contained in such license shall be deemed to be illegal and liable to forfeiture, together with the fish caught therein, and the owner or person using the same shall be also subject to fine and costs under the Fisheries Act.

(b.) All salmon nets and fishing boats shall have the name of the owner or owners legibly marked on two pieces of wood or metal attached to the same, and such mark shall be preserved on such nets or fishing boats during the fishing season in such manner as to be visible without taking up the net or nets; and any net or fishing boat used without such mark shall be liable to forfeiture.

5. (a.) The Minister of Marine and Fisheries shall from time to time determine the number of boats, seines, or nets, or other fishing apparatus to be used in any of the waters of British Columbia.

(b.) The total number of licenses for salmon fishing in the Fraser River shall be limited to 500, and of this number 350 shall be allotted among the canneries in operation on the Fraser River in the season of 1890, the allotment thereof to be based, in the cases of the old canneries, upon their average respective packs of the last three seasons, and in those of new canneries upon the estimate of the Inspector of Fisheries, of the reasonable working capacity of such new canneries.

For all licenses up to twenty, inclusive, a fee of twenty dollars each shall be charged, and for any number in excess of twenty, which, under the proposed allotment any cannery may be entitled to take up, a fee of \$50 for each license shall be charged. Should any of the 350 licenses, above referred to remain unissued, they shall be allotted on the basis already stated, to the canneries applying therefor, at a fee of \$50 for each license, and in case there should not be a sufficient number to permit of this being done, they may be issued by the Inspector of Fisheries, in such manner as he deems equitable upon payment of the last mentioned fee; the remaining 150 licenses to be issued at \$5 per license to the proprietors of freezers on the river and to fishermen, as the Minister of Marine and Fisheries may authorize, no fisherman, however, to receive more than one license.

SECTION 2.

Trout Fisheries.

No one shall fish for, catch or kill trout from the 15th October to 15th March, both days inclusive in each year. Provided always that Indians may, at any time, catch or kill trout for their own use, but not for the purposes of sale or traffic.

On a report from the superintendent of fish culture, representing that owing to their injurious effect the use of seines for the purpose of catching salmon should be prohibited in the waters of British Columbia, in the same manner as in other parts of the Dominion; the above regulations were amended by the addition of the following clause:—

“The use of seines for the purpose of catching salmon is prohibited in the waters of British Columbia.”

These are the regulations now in force.

On the whole, and with comparatively few exceptions, it may be said that the law and the regulations applicable to the protection of the fisheries have been fairly complied with. Taking into account the large number of men employed and the interests of fishermen and canners, few violations of the law have occurred, many of these were speedily detected and punished. As a rule, the fishermen of British Columbia are a law-abiding class. They seem to recognize the importance and necessity of judicious restrictions for the maintenance of the valuable industry in the success of which they are primarily interested.

The greatest difficulties experienced in past years were with those owning canneries.

Mr. Anderson was succeeded by Mr. Geo. Pittendreigh, in 1884, who held the office until April, 1886.

On the 1st July, 1887, Mr. Thos. Mowat, of New Westminster, who had had considerable experience in salmon fishing on the Bay des Chaleurs, was appointed in Mr. Pittendreigh's place. He occupied the position until his death, which occurred in September, 1891.

Mr. John McNab, of New Westminster, was then appointed as Mr. Mowat's successor, and is the present inspector of fisheries.

STAFF.

The staff of officers now employed for the protection of the fisheries of British Columbia, consists of one inspector for the whole province, and 14 guardians located as follows:—

- 4 on the Fraser River.
- 2 “ Skeena “
- 2 “ Naas “
- 1 “ Courtney River.
- 1 “ Cowichan “
- 1 at Victoria and Esquimault.
- 1 “ Rivers Inlet.
- 1 “ Burrard Inlet.
- 1 “ Mud Bay.

The special guardians are also employed, from time to time, at other places, as occasion may demand, principally during the close seasons.

THE GROWTH OF THE FISHING INDUSTRY OF BRITISH COLUMBIA.

In order to form some idea of the enormous growth of the fishing industry of British Columbia it would only be necessary to glance at the table on p. cxxxviii. It will be noticed that while the salmon fishery yielded only \$78,773 in 1876, it had increased to \$465,755 in 1877, and to the enormous sum of \$1,727,457 in 1892. The greatest yield, however, was in 1889, when the salmon pack reached \$2,414,655, and the total yield of the fisheries of the province rose to \$2,673,395. An industry of this magnitude is entitled to careful attention.

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The following table shows the fisheries expenditure and revenue (fines, licenses, &c.) in each year since Confederation in British Columbia:—

STATEMENT showing the Amount of Revenue and Expenditure in British Columbia since 1872.

Years.	Revenue.	Expenditure.		
		General.	Fish Breeding.	Total.
	£	£	£	£
1872.				
1873.				
1874.				
1875.				
1876.	105			400
1877.				635
1878.				690
1879.				1,423
1880.	10			1,399
1881.				1,721
1882.	672	1,599		1,599
1883.	790	1,599		1,599
1884.	127	2,231	3,704	5,936
1885.	365	1,437	11,873	13,310
1886.	922	1,878	5,405	7,284
1887.	943	5,860	4,623	10,484
1888.	6,934	3,661	5,653	9,314
1889.	6,416	4,333	4,933	9,266
1890.	11,367	3,634	4,202	7,836
1891.	12,914	4,320	3,339	7,659
1892.	8,192	6,158	2,896	9,054

STATEMENT of the Value of the Fisheries of British Columbia between 1876
Department of

Kinds of Fish.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
	\$	\$	\$	\$	\$	\$	\$	\$
Salmon in cans	*72,164	436,667	736,138	395,882	400,781	1,063,656	1,402,835	1,079,606
do fresh, smoked.....		600	2,139	10,050	14,839	39,900	10,638	88,967
do salted.....	6,609	28,488	43,720	17,411	20,270	39,332	45,508	42,453
Herring.....		3,304	1,450	1,570	1,790	3,700	14,290	5,925
Trout.....					150	210	2,152	4,501
Sturgeon.....		125			3,200	4,216	4,782	4,137
Halibut.....			3,000	7,220	1,182	578	380	1,500
Oulachons.....			944	3,400	905	4,311	2,479	7,367
Oysters.....								
Clams.....								
Crabs and prawns.....								
Smelts.....								
Skill.....								
Tooshqua.....								
Rock cod.....								
Fur seal skins.....		25,650	43,168	101,500	164,700	164,242	178,750	93,400
Sea otter skins.....				5,600	4,200	6,000	8,500	4,800
Assorted or mixed fish.....	900	400	400	150	475	700	1,776	31,860
Fish oils.....	25,024	56,198	62,806	46,040	63,518	79,776	108,112	119,747
Fish products.....				114	324		2,250	300
Fish for home consumption.....		32,000	32,000	37,000	37,000	47,500	58,000	159,000
Total value.....	104,697	583,432	925,766	631,706	713,335	1,454,321	1,842,675	1,644,645

*These figures are taken from the Victoria Custom-house returns.

STATEMENT showing the Kinds and Values of Fish and Fish

Kinds of Fish.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
	\$	\$	\$	\$	\$	\$	\$
Salmon, smoked..... Lbs.			842	136	26	40	100
do canned..... "	70,696	393,380	584,573	294,555	297,083	896,005	1,152,586
do fresh..... "							16
do pickled..... Brls.	2,774	22,802	12,261	9,117	10,904	19,798	25,366
Codfish, &c., dry and salted..... Cwt.							5
Halibut, fresh..... Lbs.				743	927	307	213
Sea fish and other..... Brls.	900		818	297	185	1,697	131
Oysters, fresh..... "							
Furs or skins, marine animals.....					75,840	65,134	123,804
Herring..... Brls.		2,064				191	5,265
Other articles.....						118	2,753
Fish oil..... Galls.	31,433	5,594	34,999	12,562	15,959	30,920	23,146
Totals.....	105,603	423,840	633,493	317,410	400,984	1,014,210	1,333,385

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and 1892, both years inclusive, as compiled from the Annual Reports of the Marine and Fisheries.

1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
\$	\$	\$	\$	\$	\$	\$	\$	\$
776,831	542,585	838,604	1,175,518	1,104,243	2,414,655	2,387,519	1,517,060	1,378,631
574,700	77,940	61,197	227,628	250,380	221,280	185,561	233,345	320,650
50,728	31,212	26,151	53,508	42,410	37,460	29,940	16,236	28,176
8,227	8,830	2,040	7,618	6,945	12,800	21,975	21,415	26,172
5,323	5,810	3,075	5,550	850	1,402	5,290	6,360	6,805
17,645	17,725	5,745	14,940	10,775	15,930	19,800	16,225	26,025
9,000	9,540	8,100	38,600	13,075	30,252	31,840	56,500	67,875
7,690	4,981	3,820	3,610	4,880	13,390	7,780	12,505	19,040
1,250	1,250	2,100	3,500	2,400	5,250	7,000	3,000	4,000
1,800	2,500	3,000	3,500	3,000	6,125	5,250	13,244	9,625
	2,000	2,500	4,500	7,500	10,750	30,240	30,200	30,000
		700		480	3,126	6,045	4,050	7,830
				8,712	18,720	3,480	1,644	1,140
					13,417	15,450	22,475	20,815
					1,962	10,037	7,345	8,675
156,419	150,019	391,320	239,225	282,455	340,950	499,911	800,100	609,406
		1,500	4,500	7,500	11,500	10,200		2,100
13,132	15,622	11,940	42,600	24,418	16,136	21,901	21,100	22,041
28,923	26,924	20,496	50,090	32,172	70,710	81,132	124,750	129,046
					2,250	1,080	1,200	6,425
178,000	182,000	195,000	100,000	100,000	100,000	100,000	100,000	125,000
1,358,267	1,078,038	1,577,348	1,974,887	1,902,195	3,348,067	3,481,432	3,008,755	2,849,483

Products exported from British Columbia since 1877.

1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
\$	\$	\$	\$	\$	\$	\$	\$	\$
				14	36	55	61	
798,351	504,335	405,898	601,806	917,996	750,002	2,067,368	1,741,287	1,253,382
				3,368	751	3,379	6,825	14,750
15,304	31,933	15,875	13,823	29,991	20,692	11,856	10,125	1,017
					508	1,370	30	9
		20		162	198	164	220	12,038
507	66	41	223	388	23	147	621	60
	71			10	87		38	5
70,178	164,592	211,096	287,377	202,779	209,584	290,396	513,471	1,060,227
			8					
14		102		4,569	4,724	5	1,976	9,525
15,017	26,675	10,015	7,322	4,737	7,018			
899,371	727,672	643,052	910,559	1,164,014	993,623	2,374,720	2,274,634	2,351,083

COMPARATIVE STATEMENT of the Yield of Salmon on the Fraser and Columbia Rivers.

Year.	Fraser River, Number of Cases of 4 doz. Tin Cans.	Columbia River, Number of Cases of 4 doz. Tin Cans.
1876.....	7,247	450,000
1877.....	55,387	460,000
1878.....	81,446	460,000
1879.....	50,490	480,000
1880.....	42,155	530,000
1881.....	142,516	550,000
1882.....	199,204	541,300
1883.....	93,487	629,400
1884.....	38,437	620,000
1885.....	89,617	553,800
1886.....	99,177	448,500
1887.....	128,906	356,000
1888.....	76,616	352,000
1889.....	308,122	328,000
1890.....	244,637	499,000
1891.....	177,667
1892.....	89,115

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The Board of Trade in Victoria contains among its members many influential gentlemen who operate the canning industry, and as the effort of the department was to regulate their work, it was obviously impossible to be guided by parties so interested. It was, however, always the aim to obtain the views of all, and to consult local opinion as much as possible.

With this object in view, Mr. Wilmot, in November, 1890, made a visit to British Columbia. His report will be found in the Annual Fisheries Report of 1890.

The canners objected to this report, and asked for further inquiry.

Finally, under the terms of an Order in Council of August 25th, 1891, Hon. D. W. Higgins, Victoria; Sheriff W. J. Armstrong, of Westminster; and Samuel Wilmot, Superintendent of Fish Culture, were appointed Commissioners to inquire &c., and report.

Their report was published and laid upon the table of the House of Commons in 1893.

It shows a difference of opinion and contradiction as to important facts among the canners, fishermen and residents.

The Commissioners differed as well, though on most important points they agreed.

This report has been carefully considered, and draft regulations are in preparation. Before further action, this draft will again be submitted for consideration in British Columbia, and the final criticism will be dealt with by this Government.

THE BEHRING SEA QUESTION.

The report for the year 1892 contained a review of this question up to the point of readiness for arbitration, stating that the Tribunal would meet at Paris, early in the present year.

The renewed *modus vivendi*, which was formally agreed to on the 18th April, 1892, having provided for the closure of the Behring Sea waters on the American side of the line of demarcation, described in the Treaty of Cession of 1867, until the end of October, 1893, the sealing vessels this year cleared with no uncertainty respecting their right to enter these waters.

So far as reported, this year, none of the Canadian sealers made any attempt to enter the prescribed waters, and no molestations of any nature have been encountered by them from the United States' cruisers.

Arbitration.

A preliminary meeting of the Arbitrators took place at Paris on 23rd February, but only to adjourn until 23rd March, when they met for despatch of business.

The constitution of this Court was as follows:—

H. E. the Baron Alphonse de Courcel, Senator of France, nominated by France: President.

H. E. the Marquis E. Visconti Venosta, Senator of Italy, nominated by Italy;

H. E. Monsieur Gregers Gram, Minister of State of Sweden and Norway, nominated by Sweden and Norway.

The Right Honourable Lord Hannen, Lord of Appeal; and

The Honourable Sir John S. D. Thompson, K.C.M.G., Prime Minister of the Dominion of Canada, nominated by Great Britain.

The Honourable John M. Harlan, Justice of the Supreme Court of the United States; and

The Honourable John T. Morgan, Senator of the United States, nominated by the United States.

The respective agents were:

The Honourable Charles H. Tupper, Minister of Marine and Fisheries of the Dominion of Canada, on behalf of Her Britannic Majesty.

The Honourable General John W. Foster, on behalf of the Government of the United States.

It was not until the 5th August, after discussions extending over a period of more than four months, that the award of the Arbitrators was delivered to the agents of the respective Governments.

The following is the full text of this award:—

[English Version.]

Award of the Tribunal of Arbitration constituted under the Treaty concluded at Washington, February 29, 1892, between the United States of America and Her Majesty the Queen of the United Kingdom of Great Britain and Ireland.

WHEREAS by a Treaty between the United States of America and Great Britain, signed at Washington the 29th February, 1892, the ratifications of which by the Governments of the two countries were exchanged at London on the 7th May, 1892, it was, amongst other things, agreed and concluded that the questions which had arisen between the Government of the United States of America and the Government of Her Britannic Majesty, concerning the jurisdictional rights of the United States in the waters of Behring Sea, and concerning also the preservation of the fur-seal in or habitually resorting to the said sea, and the rights of the citizens and subjects of either country as regards the taking of fur-seals in or habitually resorting to the said waters, should be submitted to a Tribunal of Arbitration to be composed of seven Arbitrators, who should be appointed in the following manner, that is to say: two should be named by the President of the United States; two should be named by Her Britannic Majesty; His Excellency the President of the French Republic should be jointly requested by the High Contracting Parties to name one; His Majesty the King of Italy should be so requested to name one; His Majesty the King of Sweden and Norway should be so requested to name one; the seven Arbitrators to be so named should be jurists of distinguished reputation in their respective countries, and the selecting Powers should be requested to choose, if possible, jurists who are acquainted with the English language;

And whereas it was further agreed by Article II. of the said Treaty that the Arbitrators should meet at Paris within twenty days after the delivery of the Counter-cases mentioned in Article IV., and should proceed impartially and carefully to examine and decide the questions which had been or should be laid before them as in the said Treaty provided on the part of the Governments of the United States and of Her Britannic Majesty respectively, and that all questions considered by the Tribunal, including the final decision, should be determined by a majority of all the Arbitrators.

And whereas by Article VI. of the said Treaty, it was further provided as follows:—

“In deciding the matters submitted to the said Arbitrators, it is agreed that the following five points shall be submitted to them in order that their award shall embrace a distinct decision upon each of said five points, to wit:

“1. What exclusive jurisdiction in the sea now known as the Behring Sea, and what exclusive rights in the seal fisheries therein, did Russia assert and exercise prior and up to the time of the cession of Alaska to the United States?

“2. How far were these claims of jurisdiction as to the seal fisheries recognized and conceded by Great Britain?

“3. Was the body of water now known as the Behring Sea included in the phrase “Pacific Ocean,” as used in the Treaty of 1825, between Great Britain and Russia; and what rights, if any, in the Behring Sea were held and exclusively exercised by Russia after said treaty.

“4. Did not all the rights of Russia as to jurisdiction and as to the seal fisheries in Behring Sea east of the water boundary, in the Treaty between the United States and Russia of the 30th March, 1867, pass unimpaired to the United States under that Treaty?

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"5. Has the United States any right, and if so, what right of protection or property in the fur-seals frequenting the islands of the United States in Behring Sea when such seals are found outside the ordinary 3-mile limit?"

And whereas by Article VII. of the said Treaty it was further agreed as follows:—

"If the determination of the foregoing questions as to the exclusive jurisdiction of the United States shall leave the subject in such position that the concurrence of Great Britain is necessary to the establishment of Regulations for the proper protection and preservation of the fur-seal in, or habitually resorting to, the Behring Sea, the Arbitrators shall then determine what concurrent Regulations, outside the jurisdictional limits of the respective Governments, are necessary, and over what waters such Regulations should extend;

"The High Contracting Parties furthermore agree to co-operate in securing the adhesion of other Powers to such Regulations."

And whereas, by Article VIII. of the said Treaty, after reciting that the High Contracting Parties had found themselves unable to agree upon a reference which should include the question of the liability of each for the injuries alleged to have been sustained by the other, or by its citizens in connection with the claims presented and urged by it, and that "they were solicitous that this subordinate question should not interrupt or longer delay the submission and determination of the main questions," the High Contracting Parties agreed that "either of them might submit to the Arbitrators any question of fact involved in said claims and ask for a finding thereon, the question of the liability of either Government upon the facts found, to be the subject of further negotiation ;"

And whereas the President of the United States of America named the Honourable John M. Harlan, Justice of the Supreme Court of the United States, and the Honourable John T. Morgan, Senator of the United States, to be two of the said Arbitrators; and Her Britannic Majesty named the Right Honourable Lord Hannen and the Honourable Sir John S. D. Thompson, Minister of Justice and Attorney General for Canada, to be two of the said Arbitrators; and His Excellency the President of the French Republic, named the Baron de Courcel, Senator, Ambassador of France, to be one of the said Arbitrators; and His Majesty the King of Italy named the Marquis Emilio Visconti Venosta, former Minister of Foreign Affairs and Senator of the Kingdom of Italy, to be one of the said Arbitrators; and His Majesty the King of Sweden and Norway named Mr. Gregers Gram, Minister of State, to be one of the said Arbitrators;

And whereas we, the said Arbitrators, so named and appointed, having taken upon ourselves the burden of the said Arbitration, and having duly met at Paris, proceeded impartially and carefully to examine and decide all the questions submitted to us the said Arbitrators, under the said Treaty, or laid before us as provided in the said Treaty on the part of the Governments of Her Britannic Majesty and the United States respectively.

Now we, the said Arbitrators, having impartially and carefully examined the said questions, do in like manner by this our Award decide and determine the said questions in manner following, that is to say, we decide and determine as to the five points mentioned in Article VI., as to which our Award is to embrace a distinct decision upon each of them;

As to the first of the said five points, we, the said Baron de Courcel, Mr. Justice Harlan, Lord Hannen, Sir John S. D. Thompson, Marquis Visconti Venosta, and Mr. Gregers Gram, being a majority of the said Arbitrators, do decide and determine as follows:—

By the Ukase of 1821, Russia claimed jurisdiction in the sea now known as the Behring Sea, to the extent of 100 Italian miles from the coasts and islands belonging to her, but, in the course of the negotiations which led to the conclusion of the Treaties of 1824 with the United States, and of 1825 with Great Britain, Russia admitted that her jurisdiction in the said sea should be restricted to the reach of cannon shot from shore, and it appears that, from that time up to the time of the cession of Alaska to the United States, Russia never asserted in fact or exercised any exclusive jurisdiction in Behring Sea, or any exclusive rights in the seal fisheries therein beyond the ordinary limit of territorial waters.

As to the second of the said five points, we, the said Baron de Courcel, Mr. Justice Harlan, Lord Hannen, Sir John S. D. Thompson, Marquis Visconti Venosta, and Mr. Gregers Gram, being a majority of the said Arbitrators, do decide and determine that Great Britain did not recognize or concede any claim, upon the part of Russia to exclusive jurisdiction as to the seal-fisheries in Behring Sea, outside of ordinary territorial waters.

As to the third of the said five points, as to so much thereof as requires us to decide whether the body of water now known as the Behring Sea was included in the phrase "Pacific Ocean," as used in the Treaty of 1825 between Great Britain and Russia, we, the said Arbitrators, do unanimously decide and determine, that the body of water now known as the Behring Sea, was included in the phrase "Pacific Ocean" as used in the said Treaty.

And as to so much of the said third point as requires us to decide what rights, if any, in the Behring Sea were held and exclusively exercised by Russia after the said Treaty of 1825, we, the said Baron de Courcel, Mr. Justice Harlan, Lord Hannen, Sir John S. D. Thompson, Marquis Visconti Venosta, and Mr. Gregers Gram, being a majority of the said Arbitrators, do decide and determine that no exclusive rights of jurisdiction in Behring Sea and no exclusive rights as to the seal fisheries therein, were held or exercised by Russia outside of ordinary territorial waters after the Treaty of 1825.

As to the fourth of the said five points, we, the said Arbitrators, do unanimously decide and determine that all the rights of Russia as to jurisdiction and as to the seal fisheries in Behring Sea, east of the water boundary, in the Treaty between the United States and Russia of the 30th March, 1867, did pass unimpaired to the United States under the said Treaty.

As to the fifth of the said five points, we, the said Baron de Courcel, Lord Hannen, Sir John S. D. Thompson, Marquis Visconti Venosta, and Mr. Gregers Gram, being a majority of the said Arbitrators, do decide and determine that the United States has not any right of protection or property in the fur-seals frequenting the islands of the United States in Behring Sea, when such seals are found outside the ordinary 3-mile limit.

And whereas the aforesaid determination of the foregoing questions as to the exclusive jurisdiction of the United States mentioned in Article VI. leaves the subject in such a position that the concurrence of Great Britain is necessary to the establishment of Regulations for the proper protection and preservation of the fur-seal in or habitually resorting to the Behring Sea, the Tribunal having decided by a majority as to each Article of the following Regulations, we, the said Baron de Courcel, Lord Hannen, Marquis Visconti Venosta, and Mr. Gregers Gram, assenting to the whole of the nine Articles of the following Regulations, and being a majority of the said Arbitrators, do decide and determine in the mode provided by the Treaty, that the following concurrent Regulations outside the jurisdictional limits of the respective Governments are necessary. and that they should extend over the waters hereinafter mentioned, that is to say:—

Article 1. The Governments of the United States and of Great Britain shall forbid their citizens and subjects respectively, to kill, capture, or pursue at any time and in any manner whatever, the animals commonly called fur-seals, within a zone of 60 miles around the Pribiloff Islands, inclusive of the territorial waters.

The miles mentioned in the preceding paragraph are geographical miles, of 60 to a degree of latitude.

Article 2. The two Governments shall forbid their citizens and subjects respectively to kill, capture, or pursue, in any manner whatever, during the season extending, each year, from the 1st May to the 31st July, both inclusive, the fur-seals on the high sea, in the part of the Pacific Ocean, inclusive of the Behring Sea, which is situated to the north of the 35th degree of north latitude, and eastward of the 180th degree of longitude from Greenwich till it strikes the water boundary described in Article I. of the Treaty of 1867 between the United States and Russia, and following that line up to Behring Straits.

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Article 3. During the period of time and in the waters in which the fur-seal fishing is allowed, only sailing-vessels shall be permitted to carry on or take part in fur-seal fishing operations. They will, however, be at liberty to avail themselves of the use of such canoes or undecked boats, propelled by paddles, oars, or sails, as are in common use as fishing boats.

Article 4. Each sailing vessel authorized to fish for fur-seals must be provided with a special license issued for that purpose by its Government, and shall be required to carry a distinguishing flag to be prescribed by its Government.

Article 5. The masters of the vessels engaged in fur-seal fishing shall enter accurately in the official log-book the date and place of each fur-seal fishing operation, and also the number and sex of the seals captured upon each day. These entries shall be communicated by each of the two Governments to the other at the end of each fishing season.

Article 6. The use of nets, firearms, and explosives shall be forbidden in the fur-seal fishing. This restriction shall not apply to shot-guns when such fishing takes place outside of Behring's Sea during the season when it may be lawfully carried on.

Article 7. The two Governments shall take measures to control the fitness of the men authorized to engage in fur-seal fishing. These men shall have been proved fit to handle with sufficient skill the weapons by means of which this fishing may be carried on.

Article 8. The Regulations contained in the preceding Articles shall not apply to Indians dwelling on the coasts of the territory of the United States or of Great Britain, and carrying on fur-seal fishing in canoes or undecked boats not transported by or used in connection with other vessels and propelled wholly by paddles, oars, or sails, and manned by not more than five persons each in the way hitherto practised by the Indians, provided such Indians are not in the employment of other persons, and provided that, when so hunting in canoes or undecked boats, they shall not hunt fur-seals outside of territorial waters under contract for the delivery of the skins to any person.

This exemption shall not be construed to affect the municipal law of either country, nor shall it extend to the waters of Behring Sea, or the waters of the Aleutian Passes.

Nothing herein contained is intended to interfere with the employment of Indians as hunters or otherwise in connection with fur-sealing vessels as heretofore.

Article 9. The concurrent Regulations hereby determined with a view to the protection and preservation of the fur-seals, shall remain in force until they have been, in whole or in part, abolished or modified by common agreement between the Governments of the United States and of Great Britain.

The said concurrent Regulations shall be submitted every five years to a new examination, so as to enable both interested Governments to consider whether, in the light of past experience, there is occasion for any modification thereof.

And whereas the Government of Her Britannic Majesty did submit to the Tribunal of Arbitration by Article VIII. of the said Treaty certain questions of fact involved in the claims referred to in the said Article VIII., and did also submit to us, the said Tribunal, a statement of the said facts, as follows, that is to say:—

“ Findings of fact proposed by the Agent of Great Britain and agreed to as proved by the Agent for the United States, and submitted to the Tribunal of Arbitration for its consideration.

“ 1. That the several searches and seizures, whether of ships or goods, and the several arrests of masters and crews, respectively mentioned in the Schedule to the British Case, pp. 1 to 60 inclusive, were made by the authority of the United States' Government. The questions as to the value of the said vessels or their contents, or either of them, and the question as to whether the vessels mentioned in the Schedule to the British Case, or any of them, were wholly or in part the actual property of citizens of the United States, have been withdrawn from, and have not been consi-

dered by the Tribunal, it being understood that it is open to the United States to raise these questions, or any of them, if they think fit, in any future negotiations as to the liability of the United States' Government to pay the amounts mentioned in the Schedule to the British Case.

" 2. That the seizures aforesaid, with the exception of the 'Pathfinder,' seized at Neah Bay, were made in Behring Sea at the distances from shore mentioned in the Schedule annexed hereto marked (C).

" 3. That the said several searches and seizures of vessels were made by public armed vessels of the United States, the commanders of which had, at the several times when they were made, from the Executive Department of the Government of the United States, instructions, a copy of one of which is annexed hereto marked (A), and that the others were, in all substantial respects, the same. That in all the instances in which proceedings were had in the District Courts of the United States resulting in condemnation, such proceedings were begun by the filing of libels, a copy of one of which is annexed hereto, marked (B), and that the libels in the other proceedings were in all substantial respects the same; that the alleged acts or offences for which said several searches and seizures were made were in each case done or committed in Behring Sea at the distances from shore aforesaid; and that in each case in which sentence of condemnation was passed, except in those cases when the vessels were released after condemnation, the seizure was adopted by the Government of the United States: and in those cases in which the vessels were released the seizures were made by the authority of the United States; that the said fines and imprisonments were for alleged breaches of the municipal laws of the United States, which alleged breaches were wholly committed in Behring Sea, at the distances from the shore aforesaid;

" 4. That the several orders mentioned in the Schedule annexed hereto, and marked (C), warning vessels to leave or not to enter Behring Sea were made by public armed vessels of the United States, the commanders of which had, at the several times when they were given, like instructions as mentioned in finding 3, and that the vessels so warned were engaged in sealing or prosecuting voyages for that purpose, and that such action was adopted by the Government of the United States;

" 5. That the District Courts of the United States in which any proceedings were had or taken for the purpose of condemning any vessel seized as mentioned in the Schedule to the Case of Great Britain, pp. 1 to 60, inclusive, had all the jurisdiction and powers of Courts of Admiralty, including the prize jurisdiction, but that in each case the sentence pronounced by the Court was based upon the grounds set forth in the libel.

" ANNEX (A).

" *Treasury Department, Office of the Secretary, Washington,*
" *April 21, 1886.*

" SIR,

" Referring to Department letter of this date, directing you to proceed with the revenue steamer 'Bear,' under your command, to the Seal Islands, &c., you are hereby clothed with full power to enforce the Law contained in the provisions of section 1956 of the United States Revised Statutes, and directed to seize all vessels and arrest and deliver to the proper authorities any or all persons whom you may detect violating the law referred to after due notice shall have been given.

" You will also seize any liquors or firearms attempted to be introduced into the country without proper permit, under the provisions of section 1955 of the Revised Statutes, and the Proclamation of the President dated the 4th February, 1870.

" Respectfully yours,
(Signed) " C. S. FAIRCHILD,
" *Acting Secretary.*

" Captain M. A. HEALY,
" *Commanding revenue-steamer 'Bear,'*
" *San Francisco, California.*"

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" ANNEX (B).

" In the District Court of the United States for the District of Alaska.

" *August Special Term, 1886.*

" To the Honourable Lafayette Dawson, Judge of said District Court.

" The libel of information of M. D. Ball, Attorney for the United States for the District of Alaska, who prosecutes on behalf of said United States, and being present here in Court in his proper person, in the name and on behalf of the said United States, against the schooner 'Thornton,' her tackle, apparel, boats, cargo and furniture, and against all persons intervening for their interest therein, in a cause of forfeiture, alleges and informs as follows:—

" That Charles A. Abbey, an officer in the Revenue Marine Service of the United States, and on special duty in the waters of the district of Alaska, heretofore, to wit, on the first day of August, 1886, within the limits of Alaska Territory, and in the waters thereof, and within the civil and judicial district of Alaska, to wit, within the waters of that portion of Behring Sea belonging to the said district, on waters navigable from the sea by vessels of 10 or more tons burden, seized the ship or vessel commonly called a schooner, the 'Thornton,' her tackle, apparel, boats, cargo, and furniture, being the property of some person or persons to the said Attorney unknown, as forfeited to the United States, for the following causes:

" That the said vessel or schooner was found engaged in killing fur-seal within the limits of Alaska Territory, and in the waters thereof, in violation of section 1956 of the Revised Statutes of the United States.

" And the said Attorney saith that all and singular the premises are and were true, and within the Admiralty and Maritime jurisdiction of this Court, and that by reason thereof, and by force of the Statutes of the United States in such cases made and provided, the afore-mentioned and described schooner or vessel, being a vessel of over 20 tons burden, her tackle, apparel, boats, cargo, and furniture, became and are forfeited to the use of the said United States, and that said schooner is now within the district aforesaid.

" Wherefore the said Attorney prays the usual process and monition of this honourable Court issue in this behalf, and that all persons interested in the before-mentioned and described schooner or vessel may be cited in general and special to answer the premises, and all due proceedings being had, that the said schooner or vessel, her tackle, apparel, boats, cargo, and furniture, may, for the cause aforesaid, and others appearing, to be condemned by the definite sentence and decree of this honourable Court, as forfeited to the use of the said United States, according to the form of the Statute of the said United States in such cases made and provided.

(Signed.) " M. D. BALL,

" *United States' District Attorney for the District of Alaska.*

" ANNEX (C).

" The following table shows the names of the British sealing-vessels seized or warned by United States revenue-cruisers, 1886-1890, and the approximate distance from land when seized. The distances assigned in the cases of the 'Carolena,' 'Thornton,' and 'Onward,' are on the authority of United States' Naval Commander Abbey (see 50th Congress, 2nd Session, Senate Executive Documents No. 106, pp. 20, 30, 40). The distances assigned in the cases of the 'Anna Beck,' 'W. P. Sayward,' 'Dolphin,' and 'Grace,' are on the authority of Captain Shepard, United States' Royal Marine (Blue Book, United States, No. 2, 1890, pp. 80-82. See Appendix, vol. iii.)"

Name of Vessel.	Date of Seizure.	Approximate Distance from Land when seized.	United States Vessel making Seizures.
Carolena.....	August 1, 1886.....	75 miles.....	Corwin.
Thornton.....	do 1, 1886.....	70 do.....	do
Onward.....	do 2, 1886.....	115 do.....	do
Favourite.....	do 2, 1886.....	Warned by "Corwin" in about same position as "Onward."	
Anna Beck.....	July 2, 1887.....	66 miles.....	Rush.
W. P. Sayward.....	do 9, 1887.....	59 do.....	do
Dolphin.....	do 12, 1887.....	40 do.....	do
Grace.....	do 17, 1887.....	96 do.....	do
Alfred Adams.....	August 10, 1887.....	62 do.....	do
Ada.....	do 25, 1887.....	15 do.....	Bear.
Triumph.....	do 4, 1887.....	Warned by "Rush" not to enter Behring Sea.	
Juanita.....	July 31, 1889.....	66 miles.....	Rush.
Pathfinder.....	do 29, 1889.....	50 do.....	do
Triumph.....	do 11, 1889.....	Ordered out of Behring Sea by "Rush" (?). As to position when warned.	
Black Diamond.....	do 11, 1889.....	35 miles.....	do
Lily.....	August 6, 1889.....	66 do.....	do
Ariel.....	July 30, 1889.....	Ordered out of Behring Sea by "Rush."	
Kate.....	August 13, 1889.....	do do.....	
Minnie.....	July 15, 1889.....	65 miles.....	do
Pathfinder.....	March 27, 1890.....	Seized in Neah Bay.*.....	Corwin.

* Neah Bay is in the state of Washington, and the "Pathfinder" was seized there on charges made against her in Behring Sea in the previous year. She was released two days later.

And whereas the Government of Her Britannic Majesty did ask the said Arbitrators to find the said facts as set forth in the said statement, and whereas the agent and counsel for the United States' Government thereupon in our presence informed us that the said statement of facts was sustained by the evidence, and that they had agreed with the agent and counsel for Her Britannic Majesty that we, the Arbitrators, if we should think fit so to do might find the said statement of facts to be true.

Now, we, the said Arbitrators, do unanimously find the facts as set forth in the said statement to be true.

And whereas each and every question which has been considered by the Tribunal has been determined by a majority of all the Arbitrators;

Now, we, Baron de Courcel, Lord Hannen, Mr. Justice Harlan, Sir John S. D. Thompson, Senator Morgan, the Marquis Visconti Venosta, and Mr. Gregers Gram, the respective minorities not withdrawing their votes, do declare this to be the final decision and award in writing of this Tribunal in accordance with the Treaty.

Made in duplicate at Paris, and signed by us the 15th day of August, in the year 1893.

And we do certify this English version thereof to be true and accurate.

(Signed.)

ALPH. DE COURCEL.

JOHN M. HARLAN.

JOHN T. MORGAN.

HANNEN.

JNO. S. D. THOMPSON.

VISCONTI VENOSTA.

G. GRAM.

Declarations made by the Tribunal of Arbitration and referred to the Governments of the United States and Great Britain for their consideration.

1. The Arbitrators declare that the concurrent Regulations, as determined upon by the Tribunal of Arbitration, by virtue of Article VII. of the Treaty of the 29th February, 1892, being applicable to the high sea only, should, in their opinion,

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be supplemented by other Regulations applicable within the limits of the sovereignty of each of the two Powers interested and to be settled by their common agreement.

2. In view of the critical condition to which it appears certain that the race of fur-seals is now reduced in consequence of circumstances not fully known, the Arbitrators think fit to recommend both Governments to come to an understanding in order to prohibit any killing of fur-seals, either on land or at sea, for a period of two or three years, or at least one year, subject to such exceptions as the two Governments might think proper to admit of.

Such a measure might be recurred to at occasional intervals if found beneficial.

3. The Arbitrators declare moreover that, in their opinion, the carrying out of the Regulations determined upon by the Tribunal of Arbitration should be assured by a system of stipulations and measures to be enacted by the two Powers; and that the Tribunal must, in consequence, leave it to the two Powers to decide upon the means for giving effect to the Regulations determined upon by it.

We do certify this English version to be true and accurate and have signed the same at Paris, this 15th day of August, 1893.

(Signed)

ALPH. DE COURCEL.
JOHN M. HARLAN.
JOHN T. MORGAN.

I approve Declarations 1 and 3.

HANNEN.

I approve Declarations 1 and 3.

JNO. S. D. THOMPSON.
VISCONTI VENOSTA.
G. GRAM.

REGULATIONS BASED ON AWARD OF ARBITRATORS.

The regulations which must necessarily be framed under the finding of the Arbitrators to apply wholly to waters beyond territorial jurisdiction, it was suggested should be supplemented by others applicable to the territorial waters, and to the territory of the respective nations.

Such regulations must be essentially of an Imperial character, so far as Canada is concerned, and it is at present impossible to give any more definite information touching their nature and extent, than is afforded by the wording of the award as quoted above.

It is, however, regarded as important, both by the British and United States' Governments that some conclusions in this respect should be arrived at without any undue delay, and this phase of the question is at present engaging the attention of the Governments of the respective nations.

REVIEW OF AWARD OF ARBITRATORS.

So much difference of opinion has been expressed as to the result of the arbitration, and as to the effect of the award, and victory having been claimed for both sides, it may be worth while to inquire what has really been the result of the controversy.

The question of success or failure in a litigation, must obviously be decided by a consideration of the issues joined and the contentions on either side. It is proposed, therefore, to point out, as shortly as may be, what was asserted and claimed by the United States and Great Britain, and how their respective claims were disposed of by the tribunal, as appears by the documents to be referred to.

The controversy was clearly divided into two branches. The legal rights asserted by the United States under which they attempted to justify their action, and the regulations which it might be reasonable to prescribe for the preservation of the seals. These were separately argued, and it will be convenient, therefore, to deal with them separately here.

First, then, as to legal rights. The United States brought on the dispute in 1886, by the very strong measure of seizing and confiscating the ships of a friendly power, and imprisoning its subjects, on the ground that they were engaged in an illegal pursuit, in violation of international law. It must be assumed that this was done only after a careful consideration of their legal position and rights.

When the vessels were libelled in the American Courts, the right to take this course was rested distinctly by the Counsel for the United States, on the sole ground that the Behring Sea was an inland water and *mare clausum*, over which they had jurisdiction and dominion, as asserted in the Statute of the United States, on which the information was based. Upon this ground as the defence, filed in 1887, declares: "The United States are prepared to abide the judgments of the Courts and the opinion of the civilized world." They did venture to rely upon it in the local Court of Alaska, which decided in their favour and justified the seizure, but when it came before the "civilized world," first in the form of diplomatic correspondence with England, and then before the international tribunal in Paris, a different ground was taken.

(App. Vol. III, p. 114-115-120.)

(Vol. III, U. S., No. 1, (1891), p. 56.)

The late Mr. Blaine, when Secretary of State, denied that the United States had ever asserted the doctrine of *mare clausum*. He stated "The repeated assertions that the Government of the United States demands that the Behring Sea be pronounced *mare clausum* are without foundation. The Government has never claimed it and never desired it. It expressly disavows it." And subsequently alluding to an expression by Lord Salisbury which seemed to him to imply that the United States had hitherto been resting its contention upon the fact that Behring Sea was a *mare clausum*, he observed "if that was his intention, it would have been well for his Lordship to specify wherein the United States ever made the assertion."

(Vol. III, U. S., No. 2, (1891), p. 1.)

(Revised Report, p. 142-4.)

Mr. Carter in his argument before the tribunal denied the responsibility of the United States for the ground taken in the Alaska Court, saying that the position of the Government must be sought and found in their responsible utterances made to Great Britain in diplomatic form.

(Reprint of letters to the Times.)

The Attorney General, as reported by the correspondent of the London *Times*, observed with much force that the proposition was somewhat startling that a defendant should be libelled for one offence and afterwards told that he had committed another offence of which he was never informed, and which he was never called upon to answer. And that the proposition was still more startling, that a Government should appeal to its judge to put a Municipal Statute in force on certain definite grounds, and should then proceed to justify the condemnation on grounds which neither the judge nor they had ever dreamed of.

The United States having acted upon their own view of international law, when their conduct was questioned, claimed that they should be allowed to formulate the legal propositions or questions upon which they relied. They availed themselves of this privilege, and there can be no complaint therefore that their exact contentions were not fairly and fully represented by the words of the reference.

(Vol. III, p. 520.)

(Vol. III, U. S., No. 1, (1891), p. 55.)

Lord Salisbury had expressed the readiness of the British Government to refer to arbitration "the legality of the recent captures with the issues that depend upon it," but Mr. Blaine objecting to this, said: "It will mean something tangible in the President's opinion, if Great Britain will consent to arbitrate the real questions which have been under discussion between the two governments for the last four years. I shall endeavour to state what in the judgment of the President these issues are.

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"1. What exclusive jurisdiction in the sea now known as the Behring's Sea, and what exclusive rights in the seal fisheries therein, did Russia assert and exercise prior and up to the time of the cession of Alaska to the United States ?

"2. How far were these claims of jurisdiction as to the seal fisheries recognized and conceded by Great Britain ?

"3. Was the body of water now known as the Behring's Sea included in the phrase "Pacific Ocean" as used in the Treaty of 1825 between Great Britain and Russia: and what rights, if any, were given or conceded to Great Britain by the said Treaty ?

"4. Did not all the rights of Russia as to jurisdiction and as to the seal fisheries in Behring Sea east of the water boundary, in the Treaty between the United States and Russia of the 30th March, 1867, pass unimpaired to the United States under that Treaty ?

"5. What are now the rights of the United States as to the fur seal fisheries in the waters of the Behring's Sea outside of the ordinary territorial limits, whether such rights grew out of the cession by Russia of any special rights or jurisdiction held by her in such fisheries, or in the waters of Behring's Sea, or out of the ownership of the breeding islands and the habits of the seals in resorting thither and rearing their young thereon and going out from the islands for food, or out of any other fact or incident connected with the relation of these seal fisheries to the territorial possessions of the United States."

Of these questions Lord Salisbury accepted Nos. 1, 2 and 4 as proposed, observing that the fourth was hardly worth referring, as Great Britain, would be prepared to accept it without dispute. In the others no substantial alteration was made, as will appear from the following statement; and in order to show at the same time how each question was disposed of, it will be convenient to place the questions submitted, with the answers given by the award, in parallel columns. (Vol. III, U. S., No. 1, (1891), p. 87.)

Questions Submitted.

Award Thereon.

1. What exclusive jurisdiction in the sea now known as the Behring's Sea, and what exclusive rights in the seal fisheries therein did Russia assert and exercise prior and up to the time of the cession of Alaska to the United States ?

1. That in the course of the negotiations which led to the conclusion of the Treaties of 1824 with the United States, and of 1825 with Great Britain, Russia admitted that her jurisdiction in the said sea should be restricted to the reach of cannon shot from shore, and it appears that from that time up to the cession of Alaska to the United States, Russia never asserted in fact or exercised any exclusive jurisdiction in Behring Sea, or any exclusive rights in the seal fisheries therein beyond the ordinary limit of territorial waters.

2. How far were these claims of jurisdiction as to the seal fisheries recognized and conceded by Great Britain ?

2. That Great Britain did not recognize or concede any claim, upon the part of Russia, to exclusive jurisdiction as to the seal fisheries in Behring Sea, outside of ordinary territorial waters.

3. Was the body of water now known as the Behring Sea included in the phrase "Pacific Ocean" as used in the Treaty of 1825 between Great Britain and Russia;

3. As to the third of the said five points, as to so much thereof as requires us to decide whether the body of water now known as the Behring Sea was included

Questions Submitted.

and what rights, if any, in the Behring Sea were held and exclusively exercised by Russia after said Treaty?

4. Did not all the rights of Russia as to jurisdiction and as to the seal fisheries in the Behring Sea, east of the water boundary, in the Treaty between the United States and Russia of the 30th March, 1867, pass unimpaired to the United States under that Treaty?

5. Has the United States any right, and if so, what right of protection or property in the fur seals frequenting the islands of the United States in Behring Sea, when such seals are found outside the ordinary three mile limit?

Award Thereon.

in the phrase "Pacific Ocean" as used in the Treaty of 1825 between Great Britain and Russia, we the said Arbitrators do unanimously decide and determine that the body of water now known as the Behring Sea was included in the phrase "Pacific Ocean" as used in the said Treaty. And as to so much of the said third point as requires us to decide what rights, if any, in the Behring Sea, were held and exclusively exercised by Russia after the said Treaty of 1825, we the said Baron de Courcel, Mr. Justice Harlan, Lord Hannen, Sir John Thompson, Marquis Visconti Venosta, and Mr. Gregers Gram, being a majority of the said arbitrators, do decide and determine that no exclusive rights of jurisdiction in Behring Sea, and no exclusive rights as to the seal fisheries therein were held or exercised by Russia outside of ordinary territorial waters after the Treaty of 1825.

4. That all the rights of Russia as to jurisdiction and as to the seal fisheries in Behring Sea, east of the water boundary, in the Treaty between the United States and Russia of the 30th March, 1867, did pass unimpaired to the United States under the said Treaty.

5. That the United States has not any right of protection or property in the fur seals frequenting the islands of the United States in Behring Sea, when such seals are found outside the ordinary three mile limit.

In this last answer, neither Mr. Justice Harlan nor Senator Morgan concurred, but it is difficult to judge what exact right of protection or property they conceive to belong to the United States.

(Vol. III, U. S., No. 1, (1891), p. 37.)

As to the third question, Mr. Blaine said: "Legal and diplomatic questions, apparently complicated, are often found, after prolonged discussion, to depend on the settlement of a single point. Such, in the judgment of the President, is the position in which the United States and Great Britain find themselves in the pending controversy touching the true construction of the Russo-American and Anglo-Russian Treaties of 1824 and 1825. Great Britain contends that the phrase 'Pacific Ocean' as used in the treaties was intended to include, and does include, the body of water which is now known as the Behring Sea. The United States contends that the Behring Sea was not mentioned or even referred to in either treaty, and was in no sense included in the phrase 'Pacific Ocean'. If Great Britain can maintain her position that the Behring Sea at the time of the treaties with Russia of 1824 and 1825, was included in the Pacific Ocean, the Government of the United States has no well grounded complaint against her. If, on the other hand, this Government can prove beyond all doubt that the Behring Sea, at the date of

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the treaties, was understood by the three signatory powers to be a separate body of water, and was not included in the phrase 'Pacific Ocean,' then the American case against Great Britain is complete and undeniable." And after devoting many pages of argument to show that it was not so included, Mr. Blaine said "It must certainly now be apparent to Lord Salisbury that Russia never intended to include the Behring Sea in the phrase 'Pacific Ocean.'" (Vol. III, U. S., No. 1, (1891), p. 50.)

On this point, so strongly and emphatically put forward and relied upon, it will be observed that the decision of the tribunal was unanimous.

It is clear that the vessels of Great Britain were seized and condemned upon a ground afterwards disclaimed by the United States Government, and which they did not attempt to support before the Tribunal. Upon each and every of the substituted legal grounds upon which, after mature consideration, they endeavoured to justify their right, they were found to be wrong. Twelve days were occupied by the Counsel of the United States in attempting to support the rights so alleged and exercised, and as regards the legality of the rights asserted by them it would be impossible to conceive a more complete and conclusive defeat.

It has been said that the United States Government had prevailed as regards the question of regulations, and that while Great Britain gained the judgment, the United States Government got the seals. On this point the result is not susceptible of so precise a test as were the legal questions raised, which admitted of decision by an affirmative or negative. Both sides conceding the necessity for regulations, the nature of these was left wholly to the discretion of the Arbitrators.

Had the United States Government succeeded in the contention, that they owned the seals and had a right to protect them wherever found, there would have been no necessity for concurrent regulations. Great Britain, however, had all along admitted that pelagic sealing should be regulated, and expressed her readiness to assist in reasonable and provident measures. When this branch of the question came up for discussion her Counsel submitted a code of regulations deemed to be effective. They invited the other side to point out their inefficiency and suggest changes. There regulations comprised a close season in Behring Sea from the 15th September to the 1st of July, and a protective zone of twenty miles around the Pribyloff Islands. They contended also that according to the proper construction of the treaty any regulations prescribed should be confined to Behring Sea.

The United States Government declined to discuss these proposals, or to suggest any other proposition short of expulsion from Behring Sea, which was subsequently extended in effect to the absolute prohibition of pelagic sealing. This measure they advocated, alleging that they had proved it to be essential. (Carter's argument, Revised report, p. 370.)

The arbitrators did not abolish pelagic sealing, but fixed a close season from the first of May to the thirty first of July, instead of from the fifteenth September to the first of July, extending from north latitude 35, and east of the 180th degree of longitude, and a zone of 60 miles instead of thirty. They also decided that fire arms or explosives should not be used in Behring Sea. (See Letters to "Times," p. 58.)

In view of the respective contentions it cannot be said that the United States have been successful. It may have been more than they expected, as has frequently been said, but it certainly is not what they contended for as essential.

Behring Sea is twelve hundred miles in extent from east to west, and more than eight hundred from north to south. Its area is stated in the United States case to be 873,128 square miles. Speaking roughly the protective zone would include about 15,000 square miles. Of the 14 vessels seized twelve were taken outside of this limit. At the outset

seals were hunted by the Indians with spears. Rifles then came into use, shot guns being afterwards commonly substituted. The Indians, finding that the use of fire arms had rendered the seals too wild, for spearing, generally discarded the spear for the gun. This method was objected to before the Tribunal on the ground that a large proportion of animals wounded were lost, an argument which no doubt prevailed with the arbitrators.

Time and experience alone can decide absolutely how far pelagic sealing may be carried on profitably under the new regulations. This is a matter of opinion on which it would be useless to dogmatize when those most competent to judge so widely differ.

It is certain the arbitrators did not intend to put an end to the pursuit, and have not framed their regulations with that end in view, although the United States' Government insisted upon the necessity.

There is one aspect of the case which effectually nullifies the claim of victory on the part of the United States.

(Carter's argu-
ment, Revised
Report, p.
353-360.)

When regulations were first suggested, Great Britain proposed that their observance should not become obligatory on the United States and Great Britain until all other maritime powers should have accepted them.

(Vol. III, U.
S., No. 3,
(1892). p. 117.)

Lord Salisbury in his telegraphic communication of November 22nd 1891, pointed out that "Great Britain and the United States would otherwise simply hand over to the nationals of other countries the right of exterminating the seals."

(Page 130.)

Mr. Blaine's despatch of the 20th December, objected to this, saying that during the five years the dispute had been in progress, no European nation had engaged in sealing; one German vessel had once appeared, but had never returned. The President, he said, in a previous letter of the 27th November, regarded this as a material change in the terms of the arbitration agreed on, and did not feel willing to take it into consideration. Lord Salisbury did not press this point.

(Page 126.)

Before the award of the arbitrators, foreign nations had little inducement to engage in the industry. They had to compete on equal terms with the Canadians already engaged therein, in comparative proximity to the field of operations, and further, they had to face the almost certainty that their vessels would be seized by the United States under claims of right, which whether well or ill founded would have to be contested and settled with that nation either by arbitration or war.

By the award these claims are authoritatively denied and it is decided that the United States Government have no legal right to interfere with pelagic sealing outside their territorial waters.

This award, while restricting British and United States sealers to certain areas and seasons, seemingly invites other nationals to compete at an advantage with their former competitors, proclaiming to them that at all times and everywhere (without further legislation and agreement) they may pursue seals without let or hindrance outside the three-mile limit.

Pelagic sealing, before these regulations, was known to have been profitable, and it is said by the United States to have been destructive to the industry on the islands. If the effect of those regulations is to prohibit only those subject to them from continuing it with advantage, it is questionable how long those not so restricted will abstain.

This view is obvious. Either these regulations are reasonable or they are not. They were intended to afford a fair share of the sealing industry to the possessors of the Pribylov Islands, and to others who pursue the seals at sea. If reasonable and efficient, other nations will agree to them equally with Great Britain and the United States.

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Then Great Britain will have secured all she has ever contended for, that the Regulations to be established should have just and equitable regard to all interests affected. If they are not reasonable and efficient, and other nations will not accede to them, what is denied to British subjects and American citizens will probably be enjoyed by others.

The destruction of the seal species cannot be in the interests of any country; and the ultimate result will probably be a renewal of diplomatic action, resulting in a convention by all the nations interested. Thus a better system than it was in the power of the Tribunal to establish will be agreed upon both on land and at sea, and such amendments from time to time adopted, as a better knowledge of the habits and life history of the animal, which is yet very imperfect, will show to be necessary.

With this, and the effectual resistance and refutation of the illegal conduct and unfounded legal claims of the United States, Great Britain may well be content, for it will be all that she has ever claimed or desired.

As the matter now stands it cannot be said that the result has been a success for the United States. Their contention was that the capture of Pribyloff Island seals was illegal, and if not forbidden by law should be wholly prohibited by regulations. It has been decided to be legal, and should the regulations be found to prevent pelagic sealing by British subjects and American citizens, they will do so only indirectly and unintentionally, and will probably hand over the industry to others not affected by them. This would mean the end of the present code of Regulations.

It will be interesting to await the action of the United States Government, towards their own citizens with regard to pelagic sealing in Behring Sea.

The act under which British ships were seized (chapter 1956 Revised Statutes), according to the past contentions of the United States' Government was to prevent the killing of fur bearing animals in the territory of Alaska including Behring Sea. It was rigorously enforced against United States citizens.

It was, of course, competent for them to apply this act to their own citizens but its extended application to the nationals of other countries was disputed.

So long as the act remains in force, it is just as applicable to the citizens of the United States as ever it was. It no longer can be applied to the nationals of Foreign Powers.

PELAGIC FUR-SEALING.

Under the heading "Seizure of and interference with British sealing vessels in the North Pacific Ocean," as well as under the heading the "Behring Sea Question," the report for 1892 dealt quite fully with pelagic sealing industry.

The closure of the Behring Sea against the Canadian sealing fleet, under special agreement between Her Majesty's Government and that of the United States, pending the result of arbitration, had the natural effect of forcing it to seek some new grounds, in order to prevent the precarious ventures from ending in failure and consequent financial disaster to the owners of the vessels.

They, therefore, sought the Asiatic side of the Pacific, and carried on their operations in the vicinity, but outside of territorial limits, of the Russian seal islands known as Commander Islands with more or less success. Here they encountered much the same treatment as had previously been dealt out to them by the authorities of the United States, and a number of their vessels were seized, at distances far beyond the territorial waters of Russia.

The matter formed the subject of diplomatic correspondence and was left at this point in the report of last year.

Since then, claims to compensation for loss and damages have been forwarded on behalf of the parties aggrieved, and the diplomatic correspondence has continued.

RUSSIAN COMMISSION ON SEIZURES.

The Russian Government by Imperial decree appointed a Commission to enquire into the several cases of the vessels seized during 1892.

The findings of this Commission were as follows—

ON THE ARREST AND CAPTURE OF THE VESSELS.

The examination into the circumstances which had attended the arrest and capture in Behring Sea of Canadian schooners and sealing-boats by Russian cruisers, was intrusted to a Special Commission appointed by Imperial decree.

To this Commission the following documents were communicated, which served as a basis for elucidating the question at issue:—

Log-books, notes and maps found in the captured vessels;

Protocols of seizure;

Report on the course of the cruizer "Zabiaka," together with the report drawn up by the Officer Commanding the Pacific Squadron;

Affidavits communicated by the British Government containing the depositions of the captains and crews of the captured vessels.

At the same time the Commission summoned Captain de Livron, late officer in command of the "Zabiaka," and the "Conseiller de Collège" Grebnitsky, District Governor of the Commander Islands, in order to hear their verbal depositions.

The examination establishes with the greatest certainty the following facts:—

1. The schooner "Marie" was captured on the 9th (21st) August, 1892, by M. Grebnitsky, District Governor of the Commander Islands, being on board the steamer "Kotik." The capture was made in latitude $54^{\circ} 36'$ north, and longitude $168^{\circ} 24'$ east, at a distance of 7 miles from Copper Island. Two boats belonging to this vessel had been sighted and captured $1\frac{1}{2}$ miles from the shore. Seventeen seals were found on board, of which ten had not yet been skinned. Without waiting to pursue the other boats, which were hunting at a somewhat greater distance, M. Grebnitsky seized the schooner himself and brought her to anchor before sunset off the village of Glinka. Next morning search was made both on the schooner and in the boats which had rejoined her during the night, and 622 seal-skins were found, of which 585 were those of females, and consequently had been taken close to the shore. An examination of the log-book of the "Marie" proved that this book had not been posted for four days, and did not contain the necessary information as to the course taken and the stoppages made by the schooner.

The degrees of longitude and latitude were only marked in the almanacs, and even that with great carelessness. The place of destination of the schooner was designated by the vague expression "sealing grounds." The skins, taken from pregnant females, bear witness to the fact that the seals had been killed close to the shore. In fact, during the period of suckling, in July and August, the females cannot go to any distance from the shore. This inference was confirmed by the presence on board the schooner of clubs which are used exclusively in the pursuit of seals on the coast. In his written protest, the captain of the "Marie" declares that his vessel was seized at a distance of $9\frac{1}{2}$ miles from shore. But the chronometer found on board the steamer was in such bad order that its indications were found to occasion an error of 15 miles. According to the captain's own admission, 499 of the seals taken had been captured in the neighbourhood of Copper Island, and only 148 in that of Vancouver. He does not deny that the three boats of the "Marie" were seized within our territorial waters. But at the same time he expresses the opinion that M. Grebnitsky should have confined his action to seizing them, and that he ought not in addition to have seized, as he did, other boats belonging to the schooner "Annie Moore," the latter not having been taken. The schooner "Annie Moore," whose boats were taken, did, in fact, succeed in evading pursuit. But that only shows that the schooners send their boats to a distance to pursue the seals in the rookeries while they

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remain themselves outside territorial waters. It was only thus that the "Annie Moore" was able to escape seizure whilst her boats were captured on the coast by the inhabitants of the country. The captain of the "Marie" admitted that the protocol of seizure was correctly drawn up, though he refused to sign it. The Commission, guided by the facts set forth above, concluded that the seizure of the schooner "Marie" had been carried out in a perfectly regular manner. It is undeniable that, juridically, the boats constitute a dependency of the schooner. Their seizure, therefore, in territorial waters legalizes that of the vessel of which they form part. If it were otherwise, the schooner could pursue seals on the coast with impunity by sending her boats there, and thus infringe the inviolability of territorial waters, though herself remaining outside their limits.

2. The schooner "Rosie Olsen" was also seized by E. Grebnitsky, District Governor of the Commander Islands. The seizure, carried out by the "Kotik," took place on the 14th (26th) July, 1892, in latitude $55^{\circ} 23'$ north, and longitude $185^{\circ} 27'$ east. The schooner had been sighted in territorial waters, but having seen the steamer, she had succeeded in gaining the high sea, after having given her boats the signal to rejoin her. Nevertheless the "Kotik," and a boat which she sent out succeeded in seizing four sealing-boats in territorial waters. One of these was seized 1 mile from the coast of Aria Island. Three boats out of seven were able to get back to the schooner. After having seized the four boats, M. Grebnitsky proceeded to capture the schooner, and drew up a protocol. The captain of the "Rosie Olsen," who was in a state of great excitement, refused to sign this document, and on arriving at Petropavlovsk, protested against the seizure of his schooner on the high sea. On board the schooner and the boats were found 379 seal skins, of which 96 per cent had been taken from females; 377 of these skins were on board the schooner. The other two were seized in the boats. The crew was composed of six Europeans and fourteen Indians. It appears from the log that the schooner had been sealing for thirteen days in the neighbourhood of Copper Island by means of her boats, which she sent into territorial waters. On the 12th (24th) July, 101 seals had been killed. The log had not been posted for several days; the chronometer was completely out of order. According to the statement of the captain of the "Rosie Olsen," the schooner was seized 38 miles from shore. To convince oneself of the incorrectness of his deposition one need only observe on the map that the point of intersection of the longitude and latitude indicated by the captain is not 38 but 54 miles from the nearest point of the coast. It may be concluded from this, that these statements were unfounded and made at random after the event.

After examining all the circumstances which accompanied the seizure of the "Rosie Olsen" the Commission concluded that this seizure was regular. The boats of these schooners were in fact surprised in the act of sealing in territorial waters.

The schooner in question is not at present at Petropavlovsk but in Canada. She was employed to repatriate the crews of the captured schooners. She was given a new name, that of "Prize," and is commanded by one of the repatriated captains, named Kopp. Captain de Livron deposed that Mr. Kopp had informed him in a private letter of the arrival of the "Prize" at her destination; the letter added that the sailors threatened to sue Mr. Kopp for payment of their wages during the passage. Captain Kopp having performed the duty with which he was charged by the Russian authorities of repatriating the crews in question, the Commission considers it just to hand over to him the property of the schooner "Prize," on condition that he deduct from her value, which may be estimated at \$600, a sufficient sum to satisfy the above-mentioned claims in so far as they may be found valid.

3. The schooner "Carmolite" was captured on the 17th (29th) August, 1892, by the cruiser "Vitiaz," commanded by Captain Zarine, and flying the flag of the Officer Commanding the Pacific Squadron. It appears from the documents examined by the Commission that this schooner was sighted by the cruiser on the other side of the isthmus, which is at the southern point of Copper Island. The "Carmolite" was then about three miles from a seal rookery. She sighted the cruiser, and taking advantage of the fact that the latter, in order to reach her, was obliged to pass round a long reef situated at the south-eastern extremity of the island, she set sail

and gained the open sea. But after an hour and a half the cruiser came up with her at a distance of eight miles from shore, in latitude $54^{\circ} 29'$ north, and longitude $168^{\circ} 2'$ east. The ship's papers showed that the schooner had been since the 29th July in the waters of the Commander Islands. The captain declared that the 608 seals, the skins of which were found on board his vessel, had been taken near Behring and Copper Islands. This is in contradiction to his declaration annexed to the British Ambassador's note of the 9th (21st) December, 1892, according to which the capture of the seals had only taken place at a distance of 60 miles from the islands. The declaration of the captain of the "Carmolite" as to the distance from shore where the seizure took place, which is given as 25 miles, as well as his statement that he had not entered Russian territorial waters, are alike refuted by precise information. In order to show their inaccuracy, it is sufficient to make a calculation based upon the cruiser's rate of speed and on the extent of horizon visible at the moment when the schooner was sighted for the first time by the "Vitiaz." The Carmolite's log-book had not been posted for two days. Two protocols of seizure were drawn up, one in Russian, the other in English. In consequence of this evidence the Commission recognized that the seizure of the "Carmolite" was altogether in conformity with the principles of international law.

4. The schooner "Vancouver Belle" was captured by the cruiser "Zabiaka" on the 31st July, 1892, in $54^{\circ} 17'$ north latitude and $168^{\circ} 12'$ east longitude, 17 miles from Copper Island. The Commander of the "Zaqiaka" having been informed by coastguardsmen that this schooner was sealing on the coast, proceeded towards her. On the way, however, he found three boats belonging to the schooner "Sayward," sealing less than 3 miles from the coast. It took about two hours to seize and take in tow these boats, and the "Vancouver Belle" took advantage of this delay to make for the open sea. When this schooner was seized it was found that no entries had been made in her log-book during the preceding twenty-four hours, but the entries found showed that she had on two occasions been engaged in sealing close to the shore in the straits between the islands. The necessary equipment for sealing on the coast was found on board the vessel. Of the 594 skins seized, 88 per cent were those of females with young. It appeared from Captain Kopp's own statements (affidavit, p. 14) that it was 2 o'clock when he caught sight of the cruiser. As it was 4 o'clock when the "Zabiaka" came up with the schooner, the latter could not have proceeded further than 14 miles seawards. In view of all that has been stated above it was decided that the seizure of the "Vancouver Belle" was perfectly regular.

5. The boat belonging to the schooner "Marvin" and the three boats belonging to the schooner "Sayward," mentioned in the British Ambassador's note of the 4th December, 1892, which inclosed the written protests of the masters of those vessels, were seized under the following circumstances. The first mentioned boat was seized by the inhabitants of Copper Island at the rookery itself, as the crew were beginning to slaughter the seals. The three others were seized by the cruiser "Zabiaka." The inhabitants of the islands had informed the cruiser that several foreign boats had landed at the rookery, and after killing a certain number of seals, had put to sea again. The cruiser proceeded in the direction indicated, and, on the 21st July, at a point 9 miles from the south-eastern extremity of Copper Island, came upon three boats which took to flight with all sail set and rowing as fast as they could. Finding that their efforts were useless, the crew stopped rowing and began to throw overboard the seals they had killed. But before they were able to complete this operation, the cruiser seized the three boats, on board of which eight seals were found. The fact that the animals' heads were battered in showed that they had been killed with clubs in the rookery, and not shot at sea. The crew of the boats belonging to the schooner "Sayward" were taken to Petropavlovsk on board the "Zabiaka," and the men belonging to the whale-boat sent from the "Marvin," who had been seized by the people of the village of Glinka, were taken by them to the village, which is situated on the opposite shore of the island. They were taken thence to Petropavlovsk by the steamer "Kotik."

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Further, the inhabitants of the village of Préobrajenskoe, which is also on Copper Island, handed over to the cruiser "Zabiaka" six sailors whom they had seized at the rookery. These men stated that they had come to hunt in two boats belonging to the English schooner "Annie Moore." The schooner herself was not seen.

These facts show that there is no foundation for the hypothesis, contained in the British Ambassador's note, that "presumably the distance which divided the 'Sayward' from her boats was not great." As a matter of fact it was impossible to see the schooner from the spot where the boats were seized, even with a glass. The fact is that, according to the depositions of the masters of the "Marvin" and "Sayward," those schooners were 20 miles from Copper Island at the time when their boats were plundering the rookeries on the Russian shore.

6. The English schooner "Tupper" was seized by the cruiser "Zabiaka" on the 29th July (10th August), 47 miles from Behring Island, on suspicion of being one of the vessels the boats of which had been seized in Russian territorial waters. As, however, the suspicion was not confirmed by positive proofs, although 274 seal-skins were found on board the schooner, the cruiser "Zabiaka" confined herself to warning the vessel not be engaged in sealing in the Russian waters around the Commander Islands. This warning was entered in the log-book of the "Tupper," as appears from the deposition of the master of that schooner inclosed in the British Ambassador's note of the 9th December, 1892. As for the assertion of the master of the "Tupper" that the Commander of the "Zabiaka" made use of threats towards him, and forbade him to hunt seals in the open sea, it is not supported by proofs. On the contrary, the seal-skins found on board the schooner were not seized, and the master's statement that the seizure resulted in loss to him is without foundation.

7. The schooner "Hall" was found on the 5th August, 1892, in 54° 33' north latitude, and 166° 10' east longitude, engaged in sealing at sea, 17 miles from Behring Island. Although 325 skins were found on board, there was no direct proof that the schooner had been sealing in Russian territorial waters. The Commander of the "Zabiaka" therefore confined himself to warning the ship to continue to abstain from sealing on the Russian shore.

8. The schooner "Willie McGown" was sighted by the cruiser "Zabiaka" on the 6th June, 1892, 15 miles from Copper Island. The schooner was under easy sail, but as soon as she caught sight of the cruiser, she made for the open sea under full canvas. The cruiser came up with her in 54° 21' north latitude and 167° 43' east longitude, 21 miles from the coast. It was only after the cruiser had fired two shots that the schooner was brought to. A search brought to light equipment for sealing on the coast, and seventy-six skins, of which 69 were those of females. No entries had been made in the log-book for twenty-four hours. On the whole, the log-book contains very meagre data in regard to the vessel's course. All the entries are vague, *e. g.*, "Jogging around sealing grounds," or simply "Jogging." According to one entry the schooner was in sight of Copper Island on the 1st (13th) July, and the weather was hazy. On the 3rd (15th) she sighted the "Zabiaka." The weather was again hazy, and there was a slight fog. On that day the cruiser "Zabiaka" was close to the shore, just off the rookery, as appears from her log-book. Traces of dots and calculations made in pencil on the chart and partly rubbed out show that the schooner took her bearings by the compass when she was one and a half hours' distance from the rookery.

One is justified in concluding from all these data that the seals found on board the schooner had been killed in Russian territorial waters.

Nevertheless, the commission did not feel justified in declaring that the seizure of the schooner "Willie McGown" was altogether regular.

9. The schooner "Ariel" was seized by the cruiser "Zabiaka" on the 16th July, at 3.30 a.m., in 54° 31' north latitude and 167° 40' east longitude. At the time of the seizure she was making away from the coast under easy sail, and was 21 miles from Copper Island. On board of her were found equipment for sealing on the coast and 139 skins, 90 per cent of which were those of suckling females. No entries had

been made in the log-book for two days. The book contains two different entries on the same date. The first states that the schooner was in sight of Copper Island; this implies, in view of the fog which prevailed on that day that the vessel was then in our territorial waters. The traces of dots and of calculations made in pencil on the chart and half rubbed out show that the bearings of the ship were taken by the compass when she was quite close to the shore.

Without denying the importance of these indications, which show that the schooner "Ariel" had been in Russian territorial waters, the majority of the Commission do not consider that her seizure can be justified from a legal point of view on account of the absence of a condition which is essential and generally admitted, that is to say, the "Ariel's" boats had not been seen sealing in our waters.

ON THE COMPLAINTS OF ILL-TREATMENT BY THE CREWS OF THE SEIZED SCHOONER.

The Commission appointed to examine the documents and depositions relating to the seizure by Russian cruisers of Canadian vessels which were fishing for seals in our territorial waters has made a minute investigation of the complaints put forward by the crews of those vessels in regard to their alleged ill-treatment on landing at Petropavlovsk. These complaints, which were set forth in the British Ambassador's note of the 17th (29th) November, 1892, and in the declarations appended to it, were accompanied by a remonstrance against the very severe conditions said to have been arranged in regard to the repatriation of the crews in question between the Captain of the "Zabiaka" and the master of the American ship "Majestic." The Commission had also to report on this claim after having duly considered the circumstances relating to it.

In the first place it appears, for the verbal depositions of Captain de Livron, as well as from the documents which formed part of the official records of the affair, that the measures taken by the Captain of the cruiser "Zabiaka" in regard to the crews of the captured schooners were in no way inconsistent with the principle enunciated in the above-mentioned note from Sir R. Morier. In the opinion of Her Britannic Majesty's Ambassador, the men of the schooners ought to have been set at liberty at the time the ships were seized. That is, in fact, what Captain de Livron did. Having accomplished the capture without meeting with any resistance, and having drawn up a protocol, he lost no time in declaring the freedom of their captains and crews. Immediately afterwards, in accordance with his instructions, he conveyed them to the nearest Russian port. The small town of Petropavlovsk, numbering in all 300 inhabitants, did not afford private buildings of sufficient size to enable them to be lodged there. Consequently, it was proposed to these men, who, be it said once more, were in no way under arrest, and who enjoyed full liberty, that they should occupy the only Government building which was available. Unfortunately, it was not sufficiently spacious. The Captain of the "Zabiaka" only took the more pains to expedite as much as possible the repatriation of the schooners' crews. He applied, for this purpose, to the captain of the American ship "Majestic," and made use of the schooner "Rosie Olsen," which had been declared a lawful seizure, and whose name had been changed to that of "Prize."

The crews of the schooners were distributed in the following manner: The "Majestic" took on board twenty-three men from the "Willie McGowan," twenty-four from the "Ariel," and twenty-two from the "Rosie Olsen"; the "Prize" took six from the boats of the "Annie Moore," nine from the "Sayward," and twenty-two from the "Vancouver Belle." The men of the schooners "Marie" and "Carmolite" were sent separately to Vladivostok in the cruiser "Vitiaz," and from thence to Japan. During their stay on board, and from the first day of their landing, 15 kopecks per man per day were allotted to the crews for their maintenance. This appears in the official correspondence which passed between Captain de Livron and the District Governor. In addition to this, the Captain of the "Zabiaka" placed at their disposal a net and some boats, in order that they might go out fishing, and gave them assistance by seamen from the cruiser.

If the men of the "Rosie Olsen" only received their subsistence allowances from the 3rd August, it was because up till then they were able to live upon their

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own provisions, which had been restored to them by the District Governor of the Commander Islands. The complaints made by some of the men that they were obliged to sleep in the open air owing to want of room cannot be taken seriously. As a mater of fact, it was so hot at Petropavlovsk in the months of July and August that the officers and men of the "Zabiaka" slept on deck by preference. With respect to the effects belonging to the crews, which were said to have been taken away, or not to have been all restored to them, the Commission satisfied itself that all the stores, clothing, stockings, boots, &c., which were on board the "Marie" and the "Rosie Olsen" at the time of their capture were handed to the captains of those ships by M. Grebnitsky. Their demand to be compensated for the value of these goods is therefore groundless. As to the other schooners, the Captain of the "Zabiaka," when proceeding to seize them, left to the crews all the effects carried upon their persons and belonging to them. He considered it his duty, on the other hand, to confiscate and hand over to the authorities at Petropavlovsk, from whom he took a full receipt, everything which was the property of the ship-owners, including the stores which were meant to be sold to the crews. The only men who had no change of clothes were those who were in the boats of the "Sayward." On the arrival of the schooner "Ariel" at Petropavlovsk, her captain regained possession of all that belonged to him excepting a sum of 100 dollars. As soon as he had made a statement of his loss to Captain de Livron, he received authority to go on board the schooner, accompanied by an officer, to look for the money, which was found behind the drawer of a chest.

The captain in question then asked to have back the ship's chronometer, which was certainly refused to him. The repatriation of the crews who were sent in the "Majestic" took place in pursuance of an agreement in due form concluded with the captain of that ship. The latter received from Captain de Livron: (1) full rations for forty-five days, calculated according to the actual statements of the captains of the captured schooners, and based upon the Regulations of the American mercantile marine; (2) a number of boats (eight large and two small), indispensable for the safety of eighty-seven men in case of shipwreck; (3) two extra ovens for cooking the food; (4) a sufficient quantity of crockery, as well as a copper boiler supplied by the cruiser. The captain of the "Majestic" bound himself to repatriate the crews on the understanding that he should afterwards appropriate, by way of remuneration, all the articles which have just been enumerated. The crews of the schooners were lodged in the hold above the ballast. The floor was covered with dried branches, fastened together by means of ropes, and on these the men were able to lay down the mattresses which were distributed to them. One was given to each.

The discontent of the captains of the schooners must be attributed, according to the depositions of the Captain of the "Zabiaka," to the fact that the Captain of the "Majestic" who was accompanied by his grown up daughter, found it impossible to put them up in his cabin. He was obliged to arrange berths for them in the cabins used for the stores.

The Commission concluded from the above evidence that the claim of the Captain of the "Majestic" of 10 dollars a-head for passage money could not be admitted, being contrary to the terms of the agreement concluded and signed by him.

With regard to the patrol sent ashore by Captain de Livron, this step was taken at the request of the district Governor of Petropavlovsk. The local police were no doubt insufficient to repress the disturbances committed by the men of the schooner in the streets of the town.

The conduct of these seamen was most disorderly. Several times the Captain of the "Zabiaka" appealed to the captains of the vessels seized, begging them to restore order, but they declared that the crews would not obey them. The captains of the "Willie McGowan" and the "Rosie Olsen" themselves came in a state of intoxication to see Captain de Livron, and used such abusive language to him that the sailors of the cruiser had to turn them out of the captain's cabin.

These questions are still under diplomatic considerations.

The Protective Zone of 1893, on Russian Coasts and Islands.

Entirely without retroactive force, as regards the British vessels seized by Russian authorities during 1892, and without prejudice to the rights and position of either power, a provisional agreement for the protection of seals was entered into between Great Britain and Russia for the year 1893. This agreement took the form of an exchange of notes and the terms were as follows:—

I.

During the year ending 31st December, 1893, the English government will prohibit their subjects from killing or hunting seal within a zone of 10 marine miles on all the Russian coasts of Behring Sea and the North Pacific Ocean; as well as within a zone of 30 marine miles round the Komandorsky Islands and Tulènev (Robben Island).

II.

British vessels engaged in hunting seals within the aforesaid zones, beyond Russian territorial waters, may be seized by Russian cruisers, to be handed over to British cruisers or to the nearest British authorities. In case of impediment or difficulty, the commander of the Russian cruiser may confine himself to seizing the papers of the aforementioned vessels in order to deliver them to a British cruiser, or to transmit them to the nearest British authorities on the first opportunity.

III.

Her Majesty's government engage to bring to trial, before the ordinary tribunals, offering all necessary guarantees, the British vessels which may be seized as having been engaged in sealing within the prohibited zones beyond Russian territorial waters.

IV.

The Imperial Russian government will limit to 30,000 the number of seals which may be killed during the year 1893, on the coasts of the Islands of Komandorsky and Tulènev (Robben Islands).

V.

An agent of the British government may visit the aforementioned Islands (Komandorsky and Tulènev) in order to obtain from the local authorities all necessary information on the working and results of the agreement arrived at, but care should be taken to give previous information to these authorities of the place and time of his visit, which should not be prolonged beyond a few weeks.

VI.

The present arrangement has no retroactive force as regards British vessels captured previously by the cruisers of the Imperial Russian Marine.

LEGISLATION TO GIVE EFFECT TO PROVISIONAL AGREEMENT.

For the purpose of giving effect to the above agreement the following legislation was enacted by the Imperial Parliament.

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Seal Fishery (North Pacific) Act 1893.

[CHAP. 23.]

CHAPTER 23.

An Act to provide for prohibiting the Catching of Seals at certain periods in Behring's Sea and other parts of the Pacific Ocean adjacent to Behring's Sea.

Whereas it is expedient to extend the Sea Fishery (Behring's Sea) Act, 1891, to other waters of the North Pacific Ocean adjacent to Behring's Sea, and for that purpose to repeal and re-enact that Act:

Be it therefore enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1.—(1.) Her Majesty the Queen may, by Order in Council, prohibit during the period specified by the Order, the catching of seals by British ships in such parts of the seas to which this Act applies as are specified by the Order.

(2.) While an Order in Council under this Act is in force—

(a.) a person belonging to a British ship shall not kill, take, or hunt, or attempt to kill or take, any seal during the period and within the seas specified by the Order; and

(b.) a British ship shall not, nor shall any of the equipment or crew thereof, be used or employed in such killing, taking, hunting, or attempt.

(3.) If there is any contravention of this Act, any person committing, procuring, aiding, or abetting such contravention shall be guilty of a misdemeanour within the meaning of the Merchant Shipping Act, 1854, and the ship and her equipment, and everything on board thereof, shall be forfeited to Her Majesty as if an offence had been committed under section one hundred and three of the said Act, and the provisions of sections one hundred and three and one hundred and four, and Part Ten of the said Act and of section thirty-four of the Merchant Shipping Act, 1876 (which are set out in the schedule to this Act) shall apply as if they were herein re-enacted, and in terms made applicable to an offence and forfeiture under this Act, and any commissioned officer on full pay in the naval service of Her Majesty the Queen may seize the ship's certificate of registry.

(4.) Any commissioned officer on full pay in the naval service of Her Majesty the Queen shall have power, during the period and in the seas specified by the Order, to stop and examine any British ship, and to detain her, or any portion of her equipment, or any of her crew, if in his judgment the ship is being or is preparing to be used or employed in contravention of this section.

(5.) For carrying into effect an arrangement with any foreign State, an Order in Council under this Act may provide that such officers of that State as are specified in the Order may exercise the like powers under this Act as may be exercised by such a commissioned officer as aforesaid in relation to a British ship, and the equipment and crew and certificate thereof, and that such British officers as are specified in the Order may exercise, with the necessary modifications, the powers conferred by this Act in relation to a ship of the said foreign State, and the equipment and crew and papers thereof.

(6.) If during the period and within the seas specified by the Order a British ship is found having on board thereof fishing or shooting implements or seal skins or bodies of seals, it shall lie on the owner or master of such ship to prove that the ship was not used or employed in contravention of this Act.

2.—(1.) Where an officer has power under this Act to seize a ship's certificate of registry, he may either retain the certificate and give a provisional certificate in lieu thereof, or return the certificate with an indorsement of the grounds on which it was seized, and in either case may direct the ship, by an addition to the provisional certificate or to the indorsement, to proceed forthwith to a specified port, being a port where there is a British court having authority to adjudicate in the matter, and if this direction is not complied with, the owner and master of the ship shall, without prejudice to any other liability, each be liable to a fine not exceeding one hundred pounds.

(2.) Where in pursuance of this section a provisional certificate is given to a ship, or the ship's certificate is indorsed, any British officer of customs or British consular officer may detain the ship until satisfactory security is given for her appearance in any legal proceedings which may be taken against her in pursuance of this Act.

3.—(1.) A statement in writing, purporting to be signed by an officer having power in pursuance of this Act to stop and examine a ship, as to the circumstances under which or grounds on which he stopped and examined the ship, shall be admissible in any proceedings, civil or criminal, as evidence of the facts or matters therein stated.

(2.) If evidence contained in any such statement was taken on oath in the presence of the person charged in the evidence, and that person had an opportunity of cross-examining the person giving the evidence and of making his reply to the evidence, the officer making the statement may certify that the evidence was so taken and that there was such opportunity as aforesaid.

4.—(1.) Her Majesty the Queen in Council may make, revoke, and alter Orders for the purpose of this Act, and every such Order shall be forthwith laid before both Houses of Parliament and published in the *London Gazette*.

(2.) Any such Order may contain any limitations, conditions, qualifications, and exceptions which appear to Her Majesty in Council expedient for carrying into effect the object of this Act.

5.—(1.) This Act shall apply to the animal known as the fur-seal, and to any marine animal specified in that behalf by an Order in Council under this Act, and the expression "seal" in this Act shall be construed accordingly.

(2.) This Act shall apply to the seas within that part of the Pacific Ocean known as Behring's Sea, and within such other parts of the Pacific Ocean as are north of the forty-second parallel of latitude.

(3.) The expression "equipment" in this Act includes any boat, tackle, fishing or shooting instruments, and other things belonging to a ship.

(4.) This Act may be cited as the Seal Fishery (North Pacific) Act, 1893.

(5.) The Seal Fishery (Behring's Sea) Act, 1891, is hereby repealed, but any Order in Council in force under that Act shall continue as if it had been made in pursuance of this Act.

Under section 1 of the foregoing Act, an Imperial Order in Council was passed. The text of this Order in Council is as follows :

SEAL FISHERY (NORTH PACIFIC) ORDER IN COUNCIL, 1893.

Windsor, 4th July, 1893.

At the Court at Windsor, the 4th day of July, 1893.

Present.

The QUEEN'S Most Excellent Majesty.

Lord President.
Lord Steward.

Lord Kensington.
Lord Vivian.

Whereas by "The Seal Fishery (North Pacific) Act, 1893," it is enacted that Her Majesty the Queen may by Order in Council prohibit during the period specified by the Order the catching of seals by British ships in such parts of the seas to which that Act applies as are specified by the Order; and that for carrying into effect an arrangement with any foreign State an Order in Council may provide that such officers of that State as are specified in the Order may exercise the like powers under the Act as may be exercised by a Commissioned Officer on full pay in the Naval Service of Her Majesty in relation to a British ship and the equipment and crew and certificate thereof; and that any such Order may contain any limitations, conditions, qualifications, and exceptions which appear to Her Majesty in Council expedient for carrying into effect the object of the said Act :

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And whereas the said Act applies to the seas within that part of the Pacific Ocean known as Behring's Sea, and within such other parts of the North Pacific Ocean as are north of the forty-second parallel of north latitude:

And whereas an arrangement has been made between Her Majesty the Queen and His Imperial Majesty the Emperor of Russia, whereby British ships engaged in hunting seals within such parts of the said seas as are hereinafter specified may be seized by Russian cruisers:

Now, therefore, Her Majesty, in virtue of the powers vested in Her by the said recited Act, and of all other powers enabling Her in that behalf, is hereby pleased, by and with the advice of Her Privy Council, to order, and it is hereby ordered, as follows:—

1. From and after the fourth day of July, one thousand eight hundred and ninety-three, until the first day of January, one thousand eight hundred and ninety-four, the catching of seals by British ships is hereby prohibited within such parts of the seas to which the recited Act applies as are comprised within the following zones, that is to say (i) a zone of ten marine miles on all the Russian coasts of Behring Sea and the North Pacific Ocean, and (ii) a zone of thirty marine miles round the Komandorsky Islands and Tulénew (Robben Island).

2. The powers which under the recited Act may be exercised by any Commissioned Officer on full pay in the Naval Service of Her Majesty may be exercised by the Captain or other Officer in command of any war vessel of His Imperial Majesty the Emperor of Russia in relation to a British ship, and the equipment and crew and certificate thereof.

3. This Order may be cited as "The Seal Fishery (North Pacific) Order in Council, 1893."

C. L. PEEL.

SEIZURES OF BRITISH SHIPS UNDER THE AGREEMENT WITH RUSSIA, 1893.

The following vessels of the Canadian sealing fleet being it is alleged by Russian authorities found within the protective zone of 30 miles, were this year seized:

Schr. "Minnie" of Victoria, B.C., seized by the Russian transport "Yakout" on 17th July, in latitude 54° 21' north, longitude 168° 38' east, 21 miles south-east of Copper Island.

Schr. "Ainoko," of Victoria, B.C., seized by the Russian Transport "Yakout" on the 22nd July, in latitude 54° 23' north, longitude 168° 32' east, 16 miles south of Copper Island.

Schr. "Maud S." of Victoria, B.C., seized by the Russian Transport "Yakout" 29th August, 22 miles south-west of Copper Island.

After the papers of these vessels had been taken from them, they were ordered to Yokohama for adjudication, their papers being delivered there by Her Majesty's cruisers doing duty in those waters.

The master of the "Maud S." complying with the instructions of the seizing officer, sailed for Yokohama and reported to Her Majesty's Consul at that port. Formal proceedings were instituted against the vessel under the Act and Order in Council above quoted, and she was acquitted.

The schooners "Ainoko" and "Minnie" proceeded to Victoria where their cases are now pending before the courts.

The only other interference with the Canadian fleet, reported this year, was in the case of the steam schooner "Warlock," of Victoria, B.C.

This vessel put into the port of Petropausovski on the Kamtschatkan Coast, for fuel and water after a rough voyage from Sand Point, along the Aleutian Islands during which no seal skins had been procured.

Her papers and sealing equipment were removed from her by the Russian cruiser "Zabiaka," and she was given a provisional clearance to Yokohama, where her captain was informed his original papers and equipment would be returned to him on application to H. M. Consul.

This vessel was not seized and no charge laid against her. The action of the Russian authorities being explained to the master as a safeguard against a possible breach of the agreement, the master of the "Warlock" having announced it as his intention to reach Yokohama as soon as possible.

In addition to the above, the British schooner "Arctic," of Shanghai, was seized by the Russian cruiser "Zabiaka" having it is said been found within the protective zone around the Commander Islands. Her case came before the Court of Yokohama for adjudication.

OPERATIONS OF THE FLEET DURING 1893.

As a consequence of the continued closure of the American side of the Behring Sea, pending the result of Arbitration, the sealing fleet pursued their vocation along the North American Coast, on the Japan Coast and in the vicinity of Commander Islands. (Russian.)

REPORT of British Columbia Sealing Fleet, Season 1893.

Vessels.	Tons.	CREWS.		Boats.	Canoes.	Masters.	CATCH.			Totals.
		White	Indian.				B.C. Coast.	Japan Coast.	Russian side.	
<i>Victoria, B.C.</i>										
Triumph	98	7	28	4	14	C. N. Cox	1,713		623	2,336
Sapphire	108	8	26	12	3	Wm. Cox	1,262		341	1,603
E. B. Marvin	117	27				I. Gould	1,014		517	1,531
Mascot	40	7	14	2	7	H. F. Siewerd	857		327	1,184
Dora Siewerd	94	24				R. O. Lavender	1,426		434	1,860
Labrador	25	11		4		J. J. Whiteley	263			263
Minnie	46	5	20	2	10	J. Mohrhouse	489		20	509
Annie E. Paint	82	23		8		A. Bissett	740		401	1,141
Mischief	45	6	20	2	10	W. Petit	344			344
Diana	50	19		6		A. Nelson	707		294	1,001
Venture	48	4	16	2	8	G. McDonald	82			82
Mermaid	73	23		8		W. H. Whiteley		940	315	1,255
Fawn	59	3	21	2	10	L. Magnesen	806		77	883
Walter A. Earle	68	23		6		T. Magnesen	1,622			1,622
Beatrice	66	5	24	2	12	D. Macaulay	655			655
Ocean Belle	83	25		8		T. O'Leary	1,316		547	1,863
Mountain Chief	23	1	19		9	J. Nawassum	128			128
Arietis	86	23		7		A. Douglass		920	464	1,384
Cape Beale	13		10		5	J. E. Quap	86			86
Kate	58	7	16	2	8	J. Foster	293			293
Favourite	80	7	26	3	13	L. McLean	949			949
Borealis	37	6	20	2	10	G. Meyer	1,307			1,307
Anako	75	5	14	1	7	G. Heater	1,344		46	1,390
W. P. Sayward	64	5	16	1	8	G. Ferey	596			596
Katharine	82	6	19	2	9	W. D. McDougall	352		363	715
San Jose	31	4	16	2	8	R. E. Crowell	242			242
Enterprise	69	24		7		J. W. Todd		1,027	274	1,301
Agnes McDonald	107	25		7		M. F. Cutler		2,333	433	2,766
Victoria	63	6	20	2	10	H. V. Hughes	420			420
Rosie Olsen	39	5	24	2	12	A. B. Whidden	658			658
Wanderer	25	4	16	1	8	H. Paxton	206			206
Viva	92	23		6		J. W. Anderson		1,441	30	1,471
May Belle	58	20		5		C. J. Harris		1,852		1,852
Umbra	98	24		7		C. Campbell		1,827	625	2,452
Penelope	70	20		6		F. Cole		2,291		2,291
Vera	60	19		5		W. Shields		1,910	99	2,009
Pioneer	66	6	23	1	11	J. McLeod	1,050			1,050
Otto	86	8	24	2	12	M. Keefe	630		397	1,027
Mary Taylor	42	18		5		E. Shields	845		240	1,085
Brenda	100	26		8		C. E. Locke	845		408	1,253
Libbie	93	23		7		F. Hackett		1,242	389	1,631
City of San Diego	46	14		5		M. Pike		942	101	1,043

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REPORT of British Columbia Sealing Fleet, Season, 1893—*Concluded.*

Vessels.	Tons.	CREWS.		Boats.	Canoes.	Masters.	CATCH.			Totals.	
		White	Indian.				B.C. Coast.	Japan Coast.	Russian side.		
<i>Victoria, B. C.</i>											
Geneva.....	92	26		8		W. O'Leary.....		1,612	454	2,066	
Casco.....	63	19		6		O. Buckhoby.....		1,473	199	1,672	
Carlotta G. Cox.....	76	24		7		W. D. Byres.....		2,396	376	2,772	
Oscar & Hattie.....	81	24		7		W. E. Baker.....		1,178	1,020	2,198	
Teresa.....	63	20		6		E. Lorenz.....		677	147	824	
Sadie Turpel.....	56	24		7		C. LeBlanc.....		927	475	1,402	
Maud S.....	97	24		7		R. E. McKeil.....		989	58	1,047	
Mary Ellen.....	63	23		7		W. O. Hughes.....		1,573	406	1,979	
Walter L. Rich.....	76	24		7		S. Balcour.....	1,321		517	1,838	
Annie C. Moore.....	113	26		8		J. Daley.....		822	333	1,155	
Walter P. Hall.....	98	23		7		J. B. Brown.....		768	263	998	
Catch of Indians.....								2,035	66	2,101	
Totals.....	3,643	806	432	256	204			26,603	29,206	12,013	67,822
<i>Vancouver, B. C.</i>											
Beatrice.....	49	20		5				950		950	
C. D. Rand.....	51	21		6				1,060		1,060	
<i>American.</i>											
Mary Brown.....								80		80	
South Bend.....								116	64	180	
								28,809	29,270	12,013	70,092
Grand total.....											70,092

The following table shows the result of the operations of the Canadian sealeries this year:—

The total result of the fur sealing industry for the year 1893, from all sources on the North Pacific Ocean, is shown by the following summary:—

Summary of Catch of Pacific Coast sealing fleet, season, 1893—

Catch of Victoria, British Columbia fleet, consisting of 53 vessels: tonnage, 3,643; crews, white, 806; crews, Indian, 432; No. of boats, 256; No. of canoes, 204.....	67,822
Catch of Vancouver, British Columbia vessels, consisting of 2 vessels: tonnage, 100; crews, white, 41 men; No. of boats, 11.....	2,010
Catch of American vessels that landed their skins at Victoria, British Columbia, consisting of 2 vessels....	260
Total British Columbia catch.....	<hr/> 70,092 <hr/>
Catch of American vessels that landed their skins at Puget Sound ports, U.S.A.....	6,855
Catch of Pelagic sealing vessels that landed their skins at San Francisco, U.S.A.....	2,748
Catch from Pribiloff Islands, landed at San Francisco, U.S.A.....	7,425
Catch from Petropaulski, by Russian Seal-skin Company, landed at San Francisco.....	33,193
Total number of seal-skins landed at San Francisco, U.S.A., and Puget Sound...	<hr/> 50,221 <hr/>
Catch of American vessels landed at Hakodate, Japan....	18,587
Catch of Hawaiian vessels landed at Hakodate, Japan	3,212
Grand Total	<hr/> 142,112 <hr/>

Victoria, B.C., 18th November, 1893.

THE FISHERIES PROTECTION SERVICE.

The work of this branch of the service has been very satisfactorily performed this season.

The fleet was under the direction of Captain O. G. V. Spain, Commanding the "Acadia," who has since been appointed Commander of the Fisheries Protection Service in place of the late Lieut. A. R. Gordon, R.N.

The report of this officer forms Appendix No. 3 of this report and deals fully with the season's operations.

The cost of this service for the fiscal year ending 30th June, 1893, is \$106,805.39.

The fleet was this year composed of the five Government steamers "Acadia," "La Canadienne," "Stanley," "Curlew," "Constance," and the schooners "Vigilant" and "Kingfisher," the latter being the only chartered vessel in the whole fleet. This vessel has been recently purchased, and added to the fleet.

Fisheries Report.

The following table shows the number of United States fishing vessels which took advantage of the *modus vivendi* licenses permitting them to purchase bait, ice and supplies as well as ship men and tranship cargoes of fish.

Year.	No of Vessels.	Tonnage.	Amount collected.
1888	36	2,554	3,831
1889	78	6,393	9,589
1890	119	9,641	14,461
1891	98	7,399	11,098
1892	108	8,940	13,410
1893	71	6,088	9,130

The complete list of vessels for which licenses were issued during 1893, will be found in Appendix No. 3, of this report.

A glance at the long list of United States vessels calling at Canso and Sand Point, Appendix No. 3, will show the importance of our ports to foreign fishing vessels as well as to the Canadian fleet.

Two United States fishing vessels, the "Lawrence A. Monro" and the "Lewis H. Giles" were seized during the season of 1893, the former for violation of Custom laws and the latter for fishing inside the three mile limit. Both these vessels were subsequently released on payment of fines.

During this season Commander Spain devoted special attention to the enforcement of the lobster close season.

FISHERIES INTELLIGENCE BUREAU.

This service, which originated in 1889, has now 55 stations, sending daily reports of the movements of fish, etc., to the central office at Halifax, from where said reports are telegraphed to the principal fishing centres of the Maritime Provinces.

These bulletins are of great importance especially to the fishermen seeking fresh bait to pursue deep-sea fishing. Through this information the Commander of the Fisheries Protection Service is kept advised of the movements of fish, which enables him to better dispose of his cruisers and exercise proper supervision of the foreign fishing fleet.

A detailed statement of this season's work by Mr. Hutchins, forms Appendix No. 4 of this report.

Instructions have been given for the analysis of the bulletins for the last four years which it is hoped will be useful to fishermen in showing to some extent the places and periods where fish are generally found.

THE NEWFOUNDLAND QUESTION.

In the annual report of the Department of Fisheries for the year 1891, at page c, under the heading "Newfoundland Bait Act," a review of the question brought the case down to the point where an opinion had been obtained to the effect that the amount of fees collected from Canadian vessels under that Act could, in each case, be recovered back. It was shown that a statement of the license fees paid by Canadian fishing vessels was being prepared, and that the Department of Justice had the matter in hand.

In the meantime the report of the Department of Marine and Fisheries for 1892, at page 71, resumed the review of the question down to the agreement for a contemporaneous removal of duties by Canada, and restrictions as to bait and bait-fishes by Newfoundland; showing the manner in which this was done by the Canadian Government.

A conference was held at Halifax to discuss the several questions between the colony of Newfoundland and the Dominion of Canada. The first meeting took place on the 9th November, 1892.

The detailed proceedings at this conference are published, and will be found at No. 246, page 26, "Papers in reference to various questions affecting Newfoundland and Canada, including the conference at Halifax, held during November, 1892." (Sessional Papers, No. 20 *d, e, f*, 1893.)

During the year just past, Newfoundland resumed the policy of issuing licenses to United States fishing vessels, on the terms set out in the *modus vivendi* to the unratified Treaty of Washington of 1888; although no arrangement has yet been effected to make such licenses, and those issued by the Canadian Government, concurrent in the waters of Newfoundland and Canada.

Such is the present position of the question.

The legal proceedings, however, for the recovery of license fees exacted, which had been begun on behalf of Canadian vessel owners for past acts, long prior to any arrangement for an adjustment of the growing difficulties, or for the conference at Halifax, proceeded in due course.

Information has reached the department that in the action of Stoneman *vs.* the Government of Newfoundland, claiming a return of license fees paid by the owners of the schooner "Wapiti," judgment was delivered by the Supreme Court of Newfoundland in favour of the plaintiff.

The absence of the text of the judgment renders it impossible to form any opinion as to whether that decision may be taken as indicating the result of all the other cases, but it is assumed that this case will lead to the settlement of all similar claims.

Fisheries Report.

SUMMARY OF THE FISHERIES OF CANADA FOR THE YEAR 1893.

On page xviii of this report it will be seen that the Inspectors of Fisheries prepared preliminary reports in which there was an approximation of the yield of the several fisheries. Since the preliminary reports were put in type the complete reports and returns for the calendar year have been received. The reports of the inspectors for several years past have appeared as a supplement to the annual report, but it was deemed advisable to publish them as part of this report for the year 1893. Some delay was thereby caused, as it is always necessary to compile the tabular statement of the yield in each province from the returns sent in by inspectors of divisions. The compilation required care and consumed much time in preparation, but it is believed that the fuller information thus presented will compensate for any delay in the publication of the report.

VALUE OF THE FISHERIES FOR 1893.

The total catch of the Canadian fisheries for the calendar year 1893 is valued at \$20,686,660, subdivided as follows:—

Nova Scotia.....	\$ 6,407,279
New Brunswick.....	3,746,121
British Columbia.....	4,443,963
Quebec.....	2,218,905
Ontario.....	1,694,930
Prince Edward Island.....	1,133,368
Manitoba and North-west Territories.....	1,042,093

These figures do not comprise the quantity of fish consumed by the Indians of British Columbia, which is estimated at about \$3,000,000.

The total value thus shows an increase of \$1,500,000 over 1892. This large increase is entirely due to the enormous catch of salmon in British Columbia. It must be remarked, however, that there was a decrease in the output of the British Columbia canneries in 1892, from the previous year, of 3,600,000 cans.

Ontario shows the largest falling off in 1893, namely, \$347,000, but this is more than made up by the increase of over \$500,000 in New Brunswick.

The yield in the other provinces differs but slightly from the previous year.

MEN ENGAGED IN FISHING, AND CAPITAL INVESTED IN THE FISHING INDUSTRY.

The men engaged in fishing in Canada number 67,753, and the fishing gear represents a capital of \$8,681,557, permanently invested.

There are 1,104 fishing vessels of 40,096 tons in the aggregate. These vessels are manned by 8,899 sailors. Other fishermen number 58,854, who use 31,508 boats and 5,406,800 fathoms of gill-nets and seines. These nets are valued at \$1,637,707, and to this must be added other fishing gear, such as pound and trap nets, weirs, etc. The lobster plant alone represents a value of \$1,343,835, consisting of 682 lobster canneries, along the coasts of the Maritime Provinces, using 892,680 traps, etc.

More than 100 vessels and 1,000 boats, employing over 3,000 more men, were employed than last year, thus showing an increase of capital invested of \$1,000,000.

DETAILS.

The following table shows the relative value of the principal kinds of commercial fishes as well as the increase or decrease of each :—

Kinds of Fish.	Amount, 1893.	Increase over 1892.	Decrease from 1892.
	\$	\$	\$
Cod	4,028,448		35,010
Salmon	3,890,644	1,647,797	
Lobsters	2,484,568	492,739	
Herring	1,852,891		182,739
Whitefish	1,298,744		199,779
Mackerel	1,096,066		250,911
Seals	874,842	241,723	
Trout	658,614		52,498
Haddock	446,320		140,204
Smelts	414,174	178,216	
Hake	367,823		24,368
Pollock	241,581	18,699	
Sardines	218,018	99,805	
Halibut	215,367		59,840
Alewives	212,714	44,535	
Pike	209,688		14,565
Pickarel	157,410		31,163
Oysters	156,440		11,219
Eels	118,793	15,632	
Sturgeon	105,795	15,255	
Bass	79,201	30,868	
Shad	77,076		22,816
Tom cod or frost fish	77,070	52,970	
Clams	68,658	50,024	
Squid	43,744	4,568	

The above table shows at a glance which particular branch of the fisheries prospered, remained stationary or failed.

The most striking fluctuation is the extraordinary increase of over a million and a half of dollars in the salmon yield of British Columbia where the unprecedented pack of over twenty-nine million 1-lb. cans is reported. This value would be still higher had not the prices of last year been considerably reduced.

The sealing industry fared better than last year, showing an increase in value of nearly a quarter of a million of dollars. The British Columbia fleet captured about 24,000 fur-seals more than in 1892.

Smelts also show the large increased value of \$178,000 over that of the preceding year. This increase was in New Brunswick, where the smelt industry is most extensively carried on, and where the catch of 1893 reached seven million pounds, being nearly double that of the previous season.

The sardine industry showing an improvement to the extent of \$100,000 is also to be credited to New Brunswick.

LOBSTERS.

Notwithstanding the enormous drain of the past fifteen years on the lobster supply, an increase of nearly half a million dollars is returned over the value of 1892. This increase is general in all the Maritime provinces, but it is more noticeable in Nova Scotia. About 88,000,000 of these crustaceans were captured this season to fill the 13,674,713 cans* besides the 7,347 tons shipped fresh or alive.

The catch of mackerel, which in 1892 showed a decrease of over half a million dollars, has this year shown a further decline of a quarter of a million dollars. This

* This is based on allowing six lobsters to a can and 2½ lbs. for average weight of shell lobsters sold fresh.

Fisheries Report.

shortage is general in all the Maritime provinces; the Magdalen Islands being the only locality showing an increase.

The other sea fish which show a considerable diminution are herring, haddock and halibut.

Of the fresh water fish, whitefish show a decrease in value of \$200,000 as compared with the catch of the previous year. This is due to a smaller catch in Ontario waters, which yielded over a million lbs. less than in 1892. In Manitoba and the North-west Territories the catch of whitefish was about the same as last year, namely 15,500,000 lbs.

The large decrease noticed in trout was owing to a smaller catch in Ontario alone where salmon-trout yielded half a million lbs. less than in the preceding year.

The increase or decrease of the other principal kinds of fish are not sufficiently marked to be specially noticed.

The quantity of fish oil obtained is nearly as large as last year, being 804,820 gallons, valued at \$321,927. The value of fish used for bait was nearly \$300,000.

COMPARATIVE STATEMENT

RECAPITULATING the Yield and Value of the Fisheries in the Dominion of Canada
for the Years 1892 and 1893.

Kinds of Fish.	1892.		1893.	
	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.
Cod... .. Cwt.	880,184	4,050,468 00	892,978	4,019,193 00
do tongues and sounds... .. Brls.	1,299	12,990 00	925½	9,255 00
Salmon, preserved, in cans... .. Lbs.	11,514,622	1,382,535 04	29,233,317	2,926,502 35
do fresh... .. " "	5,430,749	791,600 70	7,149,123	890,693 80
do pickled... .. Brls.	3,132	40,660 00	6,804	63,360 00
do smoked... .. Lbs.	140,258	28,051 60	150,710	10,088 40
Lobsters, preserved, in cans... .. " "	12,524,498	1,753,429 30	13,674,713	1,914,457 80
do in shell, alive, &c... .. Tons.	6,012½	238,400 00	7,347½	570,110 00
Herring, pickled... .. Brls.	300,223	1,351,005 00	316,746	1,425,812 00
do fresh or frozen... .. Lbs.	9,748,240	383,029 60	13,854,974	317,631 12
do smoked... .. " "	14,975,675	301,595 75	5,437,620	109,448 40
Whitefish... .. " "	23,776,763	1,498,523 42	21,390,289	1,298,744 10
Mackerel, pickled... .. Brls.	95,044	1,330,618 00	67,912	904,832 00
do fresh and preserved... .. Lbs.	136,330	16,359 60	2,172,097	191,234 14
Trout... .. " "	6,933,819	692,042 40	6,504,639	650,463 90
do pickled... .. Brls.	1,907	19,070 00	815	8,150 00
Haddock... .. Cwt.	167,578	586,524 60	133,234	466,319 50
Smelts... .. Lbs.	4,719,193	235,958 75	8,283,481	414,174 00
Hake... .. Cwt.	116,711	350,133 00	107,518	322,554 00
do sounds... .. Lbs.	84,117	42,058 50	90,539	45,269 50
Pollock... .. Cwt.	74,294	222,882 00	80,527	241,581 00
Halibut... .. Lbs.	3,430,809	275,207 50	2,840,619	215,366 80
Alewives... .. Brls.	37,684	168,179 50	47,281	212,714 00
Pike... .. Lbs.	9,682,570	224,253 83	8,737,605	209,688 25
Sardines... .. Brls.		118,213 50	100,879	205,518 00
do preserved... .. Cans.			250,000	12,500 00
Pickerel... .. Lbs.	3,893,190	188,573 57	3,848,304	157,409 65
Oysters... .. Brls.	55,953	167,659 00	51,080	156,440 00
Sturgeon... .. Lbs.	1,628,435	90,540 60	1,860,477	105,795 12
Coarse and mixed fish... .. Brls.		185,884 95	44,458	162,113 50
Eels, pickled... .. " "	4,891	48,910 00	8,259	82,590 00
do fresh... .. Lbs.	906,755	54,251 30	941,150	56,203 00
Bass... .. " "	805,560	48,333 40	1,131,091	79,201 08
Shad... .. Brls.	9,989	99,892 44	7,708	77,076 60
Tom cod or frost fish... .. Lbs.	857,000	24,100 00	1,611,428	77,070 90
Clams... .. " "		18,634 00		68,657 80
Squid... .. Brls.	9,794	39,176 00	10,936	43,744 00
Maskinongé... .. Lbs.	541,250	32,475 00	505,495	30,329 70
Mixed fish (British Columbia)... .. " "		50,046 00		22,533 50
Flounders... .. Lbs.	200,000	10,010 00	405,450	20,272 50
Crabs... .. No.	30,000 00	30,000 00		18,000 00
Oulachons... .. Lbs.	372,300	19,045 00	298,300	17,934 00
Winninish... .. " "	100,000	6,000 00	100,000	6,000 00
Fur seal skins in British Columbia... .. No.	46,362	602,706 00	70,332	843,984 00
Hair seal skins... .. " "	25,671	30,413 75	26,349	30,858 50
Sea otter skins... .. " "	14	2,100 00	15	1,875 00
Porpoise skins... .. " "	316	1,318 00	251	1,004 00
Fish oil... .. Galls.	836,699	359,904 20	804,820	321,927 40
Fish used as bait... .. Brls.	243,744	313,125 50	224,430	294,270 00
do manure... .. " "	138,324	69,164 00	147,732	73,867 00
Fish guano... .. Tons.	2,774	37,475 00	1,510¾	26,693 75
Home consumption not included in return... .. " "		296,644 00		256,149 2½
Total... ..		18,941,171 30		20,686,661 26

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RECAPITULATION

Of the Total Value in each Province for the Years 1892 and 1893.

Provinces.	Value.		Decrease.	Increase.
	1892.	1893.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Nova Scotia	6,340,724 01	6,407,279 49	.....	66,555 48
New Brunswick	3,203,922 00	3,746,121 40	.....	542,199 40
British Columbia	2,849,483 64	4,443,963 20	.....	1,594,479 56
Quebec	2,236,732 06	2,218,905 21	17,826 85	.....
Ontario	2,042,198 53	1,694,930 70	347,267 83	.....
Prince Edward Island	1,179,856 68	1,133,368 26	46,488 42	.....
Manitoba and North-west Territories	1,088,254 38	1,042,093 00	46,161 38	.....
Totals.	18,941,171 30	20,686,661 26	457,744 48	2,203,234 44
Increase .....	.....	.....	.....	1,745,489 96

COMPARATIVE STATEMENT

OF production in each Branch of the Fisheries in the respective Provinces of the Dominion of Canada.

PROVINCE OF NOVA SCOTIA.

Kinds of Fish.	1892.		1893.	
	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.
Salmon, salted..... Brls.	320	5,120 00	266	4,256 00
do fresh..... Lbs.	400,996	80,199 00	521,230	104,245 20
do canned..... "	2,590	388 00	5,704	855 80
do smoked..... "	3,308	661 60	4,490	898 00
Herring, salted..... Brls.	155,529	699,882 00	122,096	549,431 00
do smoked..... Lbs.	278,300	5,902 00	296,600	5,932 00
do fresh..... "			668,620	5,367 50
Mackerel, salted..... Brls.	49,601	694,416 00	34,844	441,880 00
do fresh..... Lbs.			1,739,722	140,429 14
Lobsters, preserved..... "	5,372,672	752,173 66	5,935,535	830,972 88
do fresh and alive..... Tons.	4,880	193,100 00	6,131 $\frac{1}{2}$	483,710 00
Cod, dried..... Cwt.	559,054	2,515,746 00	546,448	2,459,016 00
do tongues and sounds..... Brls.	1,066	10,660 00	624	6,240 00
Hake, dried..... Cwt.	55,550	166,650 00	58,210	174,630 00
do sounds..... Lbs.	35,846	17,923 00	45,790	22,895 00
Haddock, dried..... Cwt.	126,296	442,036 00	106,396	372,386 00
do fresh..... Lbs.	40,000	8,000 00	210,000	4,200 00
do preserved..... "	1,264	6,320 00	181,400	21,768 00
do smoked (finnan haddies)..... Cases.	16,084	38,601 60	3,170	7,608 00
Pollock..... Cwt.	58,015	174,045 00	66,857	200,571 00
Trout..... Lbs.	152,450	15,245 50	147,459	14,745 90
Halibut..... "	1,560,534	156,055 00	1,096,340	109,633 90
Smelts..... "	338,225	16,910 35	366,202	18,310 05
Bass..... "	16,370	982 00	8,685	520 72
Alewives..... Brls.	15,592	70,165 50	21,922	98,648 50
do smoked (per 100)..... No.	50,000	400 00	50,000	400 00
Oysters..... Brls.	3,776	11,328 00	3,488	10,461 00
Clams..... "		309 00	2,556	17,665 00
Eels..... "	2,627	26,270 00	3,168	31,680 00
Shad..... "	2,755	27,550 00	1,995	19,950 00
Squid..... "	9,503	38,012 00	10,517	42,068 00
Flounders..... Lbs.			59,750	2,987 50
Frost fish..... "		2,000 00	51,545	2,576 75
Coarse and mixed fish..... Brls.		275 00	4,532	8,180 00
Fish oils..... Galls.	225,197	90,078 80	300,375	120,149 40
do bait..... Brls.	64,629	55,803 00	65,652	56,103 00
do as manure..... "	20,880	10,441 00	13,898	6,950 00
do guano..... Tons.	283	7,075 00	300 $\frac{1}{2}$	7,518 75
Seal skins..... No.			1,149	1,436 50
Total.....		6,340,724 01		6,407,279 49
Increase in 1893.....				66,555 48

Fisheries Report.

COMPARATIVE STATEMENT of Production in each Branch of Fisheries, &c.—Continued.

PROVINCE OF NEW BRUNSWICK.

Kinds of Fish.	1892.		1893.	
	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.
Salmon, salted..... Brls.	58	928 00	109	1,744 00
do fresh..... Lbs.	1,405,170	281,034 00	2,419,205	483,841 00
do canned..... "	23,440	3,516 00	41,205	6,180 75
do smoked..... "	1,450	290 00	2,980	596 00
Herring, salted..... Brls.	95,040	427,680 00	121,478	546,651 00
do fresh..... Lbs.	440,000	3,300 00	4,630,850	48,496 50
do smoked..... "	14,641,000	292,820 00	5,084,920	101,698 40
Mackerel, salted..... Brls.	18,725	262,150 00	10,573	148,022 00
do fresh..... Lbs.	128,810	15,457 20	387,175	45,381 00
Lobsters, preserved in cans..... "	3,204,320	448,604 80	3,373,370	472,271 80
do alive or fresh..... Tons.	1,132½	45,300 00	1,213½	86,320 00
Cod, dried..... Cwt.	74,547	335,461 50	73,226	329,517 00
do tongues and sounds..... Brls.	109	1,090 00	46½	465 00
Hake, dried..... Cwt.	37,615	112,845 00	41,114	123,342 00
do sounds..... Lbs.	41,615	20,807 50	37,834	18,917 00
Haddock..... Cwt.	16,433	57,515 50	13,455	47,092 50
Pollock..... "	16,279	48,837 00	13,670	41,010 00
Trout..... Lbs.	109,760	10,976 00	163,060	16,306 00
Halibut..... "	385,530	38,553 00	203,864	20,386 40
Smelts..... "	3,914,860	195,743 00	7,109,365	355,468 25
Basas..... "	55,870	3,352 20	283,400	28,340 00
Alewives..... Brls.	21,155	95,197 50	24,690	111,105 00
Oysters..... "	17,840	53,520 00	16,365	49,095 00
Clams..... "		8,700 00	10,104	17,751 00
do canned and shelled..... Lbs.			260,536	13,026 80
Eels..... Brls.	1,370	13,700 00	4,391	43,910 00
Shad..... "	6,518	65,180 00	5,055	50,550 00
Squid..... "	291	1,164 00	419	1,676 00
Sardines..... "		99,247 50	96,119	191,238 00
do preserved..... Cans.	150,000	6,000 00	250,000	12,500 00
Pickarel..... Lbs.	118,000	5,900 00	131,300	6,565 00
Flounders..... "	200,000	10,010 00	345,600	17,280 00
Frost fish..... "	292,000	14,600 00	1,385,050	69,252 50
Coarse fish..... Brls.	193	489 00	3,590	7,360 00
Fish oils..... Galls.	80,897	32,358 80	70,070	28,028 00
Seal skins..... No.			2	2 00
Fish bait..... Brls.	58,540	77,760 00	63,871	95,806 50
do manure..... "	44,247	22,123 50	38,358	19,179 00
do guano..... Tons.	351	8,775 00	390	9,750 00
Home consumption in district No. 1, not included above.....		82,936 00		80,000 00
Total.....		3,203,922 00		3,746,121 40
Increase in 1893.....				542,199 40

COMPARATIVE STATEMENT of Production in each Branch of Fisheries, &c.—Continued.

PROVINCE OF PRINCE EDWARD ISLAND.

Kinds of Fish.	1892.		1893.	
	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.
Salmon, fresh..... Lbs.	11,980	1,098 00	2,970	594 00
Herring, salted..... Brls.	20,902	94,059 00	40,949	184,270 50
do fresh..... Lbs.			12,500	125 00
do smoked..... "			6,000	120 00
Mackerel, salted..... Brls.	21,901	306,614 00	14,280	199,920 00
do canned..... Lbs.	7,521	902 40	38,100	4,572 00
Lobsters, canned..... "	2,819,572	394,740 08	3,168,674	443,614 36
Cod, dried..... Cwt.	19,402	87,309 00	21,062	94,779 00
Tongues and sounds..... Brls.			2	20 00
Hake, dried..... Cwt.	23,546	70,638 00	8,044	24,132 00
do sounds..... Lbs.	6,656	3,328 00	6,915	3,457 50
Haddock..... Cwt.	8,621	30,173 50	868	3,038 00
Trout..... Lbs.	34,450	3,445 00	35,970	3,597 00
Halibut..... "	2,300	230 00	5,400	540 00
Smelts..... "	196,900	9,845 00	496,390	24,819 50
Alewives..... Brls.	537	2,416 50	569	2,560 50
Oysters..... "	32,937	98,811 00	29,627	88,881 00
Clams..... "			425	2,550 00
Eels..... "	894	8,940 00	700	7,000 00
Flounders..... Lbs.			100	5 00
Tom cods..... "			1,670	83 50
Mixed and coarse fish..... Brls.			938	1,876 00
Fish oil..... Galls.	11,403	4,561 20	10,096	4,038 40
Seal skins..... No.			10	10 00
Fish used as bait..... Brls.	27,664	41,496 00	20,435	30,652 50
do do manure..... "	21,250	21,250 00	125	62 50
do guano..... Tons.			805	8,050 00
Total.....		1,179,856 68		1,133,368 26
Decrease in 1893.....				46,488 42

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COMPARATIVE STATEMENT of Production in each Branch of Fisheries, &c.—Continued.

PROVINCE OF QUÉBEC.

Kinds of Fish.	1892.		1893.	
	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.
Salmon, salted..... Brls.	396	6,336 00	741	11,856 00
do fresh..... Lbs.	679,094	135,818 80	611,518	122,303 60
do in cans..... "			16,500	2,475 00
Herring, salted..... Brls.	25,061	112,774 50	29,051	130,729 50
do fresh..... Lbs.			90,400	904 00
do smoked..... "	35,375	353 75	41,400	828 00
Mackerel, salted..... Brls.	4,817	67,438 00	8,215	115,010 00
do fresh..... Lbs.			7,100	852 00
Lobsters, canned..... "	1,127,934	157,910 76	1,197,134	167,598 76
do fresh..... Tons.			2	80 00
Cod..... Cwt.	245,209	1,103,276 50	247,622	1,108,161 00
do tongues and sounds..... Brls.	124	1,240 00	253	2,530 00
Hake, salted..... Cwt.			150	450 00
Haddock, salted..... "	1,108	3,878 00	2,922	10,227 00
Halibut..... Lbs.	124,945	12,494 50	161,115	16,111 50
Whitefish..... "	143,262	11,460 96	155,360	12,428 80
Trout..... "	422,250	40,885 00	407,070	40,707 00
Shad..... "	119,374	7,162 44	109,610	6,576 60
Smelts..... "	112,608	5,630 40	231,524	11,576 20
Clams..... Brls.			1,408	7,040 00
Eels..... Lbs.	830,705	49,688 30	844,530	50,405 80
Sturgeon..... "	213,342	12,300 40	208,450	12,507 00
Sardines..... Brls.	4,322	12,966 00	4,760	14,280 00
Maskinongé..... Lbs.	52,450	3,147 00	52,500	3,150 00
Bass..... "	97,130	5,827 80	104,525	6,271 50
Pickarel..... "	201,175	10,058 75	240,473	12,023 90
Pike..... "	213,645	10,682 25	205,730	10,286 50
Winninish..... "	100,000	6,000 00	100,000	6,000 00
Tom cod..... "	60,000	7,500 00	173,163	5,158 15
Coarse and mixed fish..... Brls.	14,286	58,137 00	14,293	42,880 80
Seal skins..... No.	18,971	23,713 75	21,038	26,297 50
Porpoise skins..... "	316	1,318 00	251	1,004 00
Fish oil..... Galls.	259,648	103,859 20	252,029	100,811 60
do for bait..... Brls.	92,711	139,066 50	74,472	111,708 00
do for manure..... "	73,197	36,599 50	95,351	47,675 50
Fish used as local consumption..... "	22,176	88,708 00		
Total.....		2,236,732 06		2,218,905 21
Decrease in 1893.....				17,826 85

COMPARATIVE STATEMENT of Production in each Branch of Fisheries, &c.—*Continued.*

PROVINCE OF BRITISH COLUMBIA.

Kinds of Fish.	1892.		1893.	
	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.
Salmon, preserved in cans. Lbs.	11,488,592	1,378,631 04	29,169,908	2,916,990 80
do fresh "	2,935,509	293,550 90	3,594,200	179,710 00
do smoked "	135,500	27,100 00	143,240	8,594 40
do salted Brls.	2,348	28,176 00	5,688	45,504 00
Herring, fresh Lbs.	489,000	23,652 50	458,000	22,900 00
do smoked "	21,000	2,520 00	8,700	870 00
do salted Brls.			250	1,500 00
Sturgeon Lbs.	520,509	26,025 00	330,000	16,500 00
Halibut "	1,357,500	67,875 00	1,373,900	68,695 00
Oulachons, pickled Brls.	875	7,000 00	948	7,584 00
do smoked Lbs.	21,800	3,270 00	17,500	1,050 00
do fresh "	175,500	8,775 00	186,000	9,300 00
Trout "	68,050	6,805 00	56,400	5,640 00
Smelts "	156,600	7,830 00	80,000	4,000 00
Skill, salted. Brls.	95	1,140 00	77	616 00
Codfish, fresh (rock). Lbs.	173,500	8,675 00	462,000	27,720 00
Oysters Bush.	2,000	4,000 00	4,000	8,000 00
Mussels "	600	525 00	600	480 00
Clams "	11,000	9,625 00	12,500	10,625 00
Crabs. No.	600,000	30,000 00	600,000	18,000 00
Tooshqua Lbs.	416,300	20,815 00		
Fur-seal skins No.	46,362	602,706 00	70,332	843,984 00
Hair do "	6,700	6,700 00	4,150	3,112 50
Sea-otter skins. "	14	2,100 00	15	1,875 00
Assorted or mixed fish. Lbs.	430,320	31,516 00	304,750	15,237 50
Shrimps and prawns "		5,000 00		5,000 00
Fish oil. Galls.	259,554	120,046 20	172,250	68,900 00
Fish products. "		1,050 00		1,200 00
Fish for home consumption, Chinese labour- ers, not included above		125,000 00		150,000 00
Guano made from offal. Tons.	15	375 00	15	375 00
Total		2,849,483 64		4,443,963 20
Increase in 1893.				1,594,479 56

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COMPARATIVE STATEMENT of Production in each branch of Fisheries, &c.—*Concluded.* PROVINCE OF ONTARIO.

Kinds of Fish.	1892.		1893.	
	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.
Whitefish	Brls. 1,030	10,300 00	630	6,300 00
do	Lbs. 7,637,396	610,991 68	5,667,010	453,360 80
Salmon trout	Brls. 1,907	19,070 00	815	8,150 00
do	Lbs. 6,146,859	614,685 90	5,694,680	569,468 00
Herring	Brls. 3,546	15,957 00	2,940	13,230 00
do	Lbs. 8,918,240	356,729 60	7,094,604	239,838 12
Eels	" 76,050	4,563 00	96,620	5,797 20
Sturgeon	" 767,187	46,031 10	1,237,577	74,254 62
Maskinonge	" 488,800	29,328 00	452,995	27,179 70
Bass	" 636,190	38,171 40	734,481	44,068 86
Pickarel	" 2,973,422	148,671 10	2,109,555	105,477 75
Pike	" 806,436	40,321 80	958,815	47,940 75
Coarse fish	" 3,579,265	107,377 95	2,911,690	87,350 70
Fish for home consumption .....	" .....	.....	417,140	12,514 20
Total		2,042,198 53		1,694,930 70
Decrease in 1893				347,267 83

MANITOBA AND NORTH WEST TERRITORIES.

Whitefish	Lbs. 15,789,105	865,670 78	15,441,919	826,654 50
Pickarel	" 600,593	23,943 72	1,366,971	33,343 00
Pike	" 8,662,489	173,249 78	7,573,060	151,461 00
Sturgeon	" 127,410	5,684 10	84,450	2,533 50
Tullibee	" 171,800	3,536 00	68,600	2,058 00
Mixed and coarse fish	" 1,617,000	16,170 00	1,240,800	12,408 00
Home consumption, not included above .....	" .....	.....	1,363,515	13,635 00
Total		1,088,254 38		1,042,093 00
Decrease in 1893				46,161 38

RECAPITULATION

Showing the Number, Tonnage and Value of Fishing Vessels and Boats, and all other Fishing Material, as well as the Number of Fishermen in the Dominion of Canada, 1893.

PROVINCE.	FISHERMEN.		VESSELS.			BOATS.		GILL NETS AND SEINES.		Value of Pound Nets, of Lobster Weirs, &c.	Value of Lobster Plant.	Approximate Value of Freezers, Ice and Smokehouses and other Fixtures not Itemized.	TOTAL VALUE.
	Vessels.	Boats.	Number.	Tonnage.	Value.	Number.	Value.	Fathoms.	Value.				
Nova Scotia.....	5,447	18,400	543	24,859	1,215,278	13,795	303,376	2,353,910	581,540	248,234	434,729	423,625	3,206,782
New Brunswick.....	827	10,478	226	3,382	83,795	5,978	202,282	528,817	325,688	197,630	344,866	334,774	1,489,035
Prince Edward Island..	285	3,287	39	1,357	33,350	1,237	46,458	80,936	38,772	5,388	490,150	30,400	644,518
Quebec.....	387	11,178	59	2,093	50,550	6,504	178,782	256,083	163,407	82,937	74,090	96,470	746,236
Ontario.....	375	2,254	*76	1,734	197,650	1,012	92,046	1,738,721	254,721	119,525	.....	Not given.	663,942
British Columbia	†1,540	12,392	148	5,158	573,150	2,543	119,310	329,320	258,467	14,250	.....	945,300	1,910,477
Manitoba.....	88	865	*13	1,513	92,600	439	12,855	119,015	15,112	.....	.....	Not given.	120,567
Totals.....	8,899	58,854	1,104	40,096	2,246,373	31,508	955,109	5,406,802	1,637,707	667,964	1,343,835	1,880,569	8,781,557

* Mostly all fishing steam tugs.
 † Including sealing fleet crews.

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RECAPITULATION.
TABLE showing the Total Value of the Fisheries in the respective Provinces of Canada, from 1870 to 1893, inclusive, as compiled from the Annual Reports of the Department of Fisheries.

Years.	Nova Scotia.	New Brunswick.	Prince Edward Island.	Quebec.	Ontario.	British Columbia.	Manitoba and North-west Territories.	Total for Canada.
	\$	\$	\$	\$	\$	\$	\$	\$
1870.....	4,019,425	1,131,433	No data	1,161,551	264,982	No data	No data	6,577,391
1871.....	5,101,030	1,185,033	do	1,093,612	193,524	do	do	7,573,199
1872.....	6,016,835	1,965,450	do	1,320,189	267,633	do	do	9,570,116
1873.....	6,577,987	2,285,662	207,595	1,391,564	293,091	do	do	10,754,997
1874.....	6,652,302	2,685,794	288,863	1,608,660	446,267	do	do	11,681,886
1875.....	5,573,851	2,427,654	298,927	1,596,759	453,194	do	do	10,350,385
1876.....	6,029,050	1,953,389	493,967	2,097,668	437,229	104,637	do	11,117,000
1877.....	5,527,858	2,133,237	763,036	2,560,147	496,223	583,433	do	12,005,934
1878.....	6,131,600	2,305,700	840,344	2,664,055	348,122	925,767	do	13,295,678
1879.....	5,752,937	2,554,722	1,402,301	2,820,395	367,133	631,766	do	13,593,254
1880.....	6,291,061	2,744,447	1,675,089	2,631,556	444,491	713,385	do	14,489,979
1881.....	6,214,782	2,930,904	1,965,290	2,751,962	569,903	1,454,321	do	15,817,162
1882.....	7,131,418	3,192,339	1,855,687	1,976,516	825,457	1,842,675	do	16,824,092
1883.....	7,689,374	3,185,674	1,272,468	2,138,997	1,027,033	1,644,646	do	16,958,192
1884.....	8,763,779	3,730,454	1,085,619	1,694,461	1,133,724	1,358,267	do	17,766,404
1885.....	8,283,322	4,005,431	1,293,430	1,713,460	1,342,692	1,078,038	do	17,722,973
1886.....	8,415,362	4,180,227	1,141,991	1,741,382	1,436,998	1,557,348	186,980	18,679,288
1887.....	8,379,782	3,559,507	1,037,426	1,773,567	1,531,850	1,974,887	129,084	18,386,103
1888.....	7,817,030	2,941,863	876,862	1,860,012	1,839,869	1,902,195	180,677	17,418,510
1889.....	6,346,722	3,067,039	886,430	1,876,194	1,963,123	3,348,067	167,679	17,655,256
1890.....	6,636,444	2,699,056	1,041,109	1,615,119	2,009,637	3,481,432	232,104	17,714,902
1891.....	7,011,300	3,571,050	1,238,733	2,008,678	1,806,389	3,008,755	332,969	18,977,878
1892.....	6,340,724	3,203,922	1,179,856	2,236,732	2,042,198	2,849,483	1,088,254	18,941,171
1893.....	6,407,675	3,746,121	1,133,368	2,218,905	1,694,930	4,443,963	1,042,093	20,686,661
Totals.....	159,110,954	67,386,206	21,969,391	46,458,241	23,116,692	32,923,075	3,359,840	354,420,319

COMPARATIVE TABLE showing Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries of Canada, together with the Value of Fishing Materials employed, from 1879 to 1893.

YEARS.	VESSELS.			BOATS.		Value of Nets and Seines.	Value of other Fishing Material.	Total of Capital Invested.
	No.	Tonnage.	Value.	No.	Value.			
			\$		\$	\$	\$	\$
1879.....	1,183	43,873	1,714,917	25,616	854,289	988,698	456,617	4,014,521
1880.....	1,181	45,323	1,814,688	25,266	716,352	985,978	419,564	3,936,582
1881.....	1,120	48,389	1,765,870	26,108	696,710	970,617	679,852	4,113,049
1882.....	1,140	42,845	1,749,717	26,477	833,137	1,351,193	823,938	4,757,985
1883.....	1,198	48,106	2,023,045	25,825	783,186	1,243,366	1,070,930	5,120,527
1884.....	1,182	42,747	1,866,711	24,287	741,727	1,191,579	1,224,646	5,014,663
1885.....	1,177	48,728	2,021,633	28,472	852,257	1,219,284	2,604,285	6,697,459
1886.....	1,113	44,605	1,980,411	28,187	850,545	1,263,152	2,720,187	6,814,295
1887.....	1,168	44,845	1,989,840	28,092	875,316	1,499,328	2,384,356	6,748,840
1888.....	1,137	43,247	2,017,558	27,384	859,953	1,594,992	2,390,502	6,863,005
1889.....	1,100	44,936	2,064,918	29,555	965,010	1,591,035	2,149,138	6,770,151
1890.....	1,069	43,084	2,152,790	29,803	924,346	1,695,358	2,600,147	7,372,641
1891.....	1,027	39,377	2,125,355	30,438	1,007,815	1,644,892	2,598,124	7,376,186
1892.....	988	37,205	2,112,875	30,513	1,041,972	1,475,043	3,017,945	7,647,835
1893.....	1,104	40,096	2,246,373	31,508	955,109	1,637,707	3,174,404	8,681,557

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COMPARATIVE TABLE showing the Number of Men employed in the Fishing Industry
in Vessels and Boats from the Year 1879 to 1893.

Years.	Number of Men in Vessels.	Number of Men in Boats.	Total Number of Fishermen.
1879	8,818	52,577	61,395
1880	8,757	51,900	60,657
1881	8,359	50,679	59,056
1882	8,498	52,785	61,283
1883	9,966	52,259	62,225
1884	9,968	51,854	61,822
1885	9,539	53,282	62,821
1886	8,927	53,073	62,000
1887	8,911	55,247	64,158
1888	9,574	53,109	62,683
1889	9,621	55,382	65,003
1890	8,726	55,000	63,726
1891	8,666	56,909	65,575
1892	8,330	55,348	63,678
1893	8,899	58,854	67,753

CONCLUSION.

It will be seen from the foregoing pages that steps are being taken to protect the fisheries of Canada and to prevent, where possible, any depletion of its waters. The great interests at stake are constantly kept in view by the department, whilst at the same time all is being done that can be to encourage and foster a desire in fishermen and others engaged in the industry of fishing to assist in properly maintaining regulations that will preserve our great heritage.

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

WM. SMITH,
Deputy Minister of Marine and Fisheries.

SPECIAL APPENDED REPORTS.

No. I.—ON THE USE OF SEINES IN INLAND WATERS.

BY PROFESSOR PRINCE, COMMISSIONER OF FISHERIES.

Among many measures that have been taken for the preservation of the fish wealth of our inland lakes and rivers, the establishment of close seasons, affording protection to breeding fish, the liberal stocking of waters with fry from the Government hatcheries, and the regulation of modes of fishing by mesh restrictions and the like, have proved of direct and substantial benefit. Without such regulations our vast fresh water fisheries would already have been wholly depleted. Canadian fishermen on the lakes readily recognize the value and utility of the fishery laws of the Dominion, and an eminent United States authority* testified not long ago to "the greater prolificness of the Canadian waters at the present time in whitefish and trout" when comparing the north and south shores of Lake Ontario.

It cannot be denied that measures still remain to be taken to further aid in the recuperation of our fisheries. While protecting full grown fish when about to spawn it is forgotten that protection, too, is necessary for the fry, when newly hatched and during the first months of their existence. The destruction of very young and immature fish which were of little or no value to the fishermen, is a source of danger.

The fact needs no demonstration that our fisheries really ultimately depend upon the welfare and abundance of young fish. Anything detrimental to them in their early and defenceless stages affects injuriously the fisheries as a whole. If the young be injured or destroyed the supply of adult fish in the future will diminish or cease. Artificial fish-culture, moreover, being carried on upon an extensivescale and vast quantities of young fry deposited annually, these cannot adequately benefit the fisheries if the liberated schools are disturbed or devastated. Scientific observation has shown that the minute and defenceless fry of the greater number of valuable fishes, freshwater and marine, resort to comparatively shallow water during the first months of their existence. The surface of the sea in certain areas has been found to be alive with swarms of delicate young fish, and the shallow waters in our lakes and rivers are the favourite haunt of multitudes of young. This is so for many reasons. The light and warmth necessary for rapid growth are furnished there. At greater depths the water is cold and comparatively dark. Further, safety from the attacks of larger fish is better secured than in deeper water. Some fish are found to prefer shingly beaches, where pebbles abound, affording crevices for shelter when danger is near; others choose a smooth sandy bottom, especially in sheltered bays and creeks, over which they roam in search for minute food, chiefly infusorians, minute crustaceans, molluscs, &c. The schools of diminutive fish in such regions are of the most varied character including worthless as well as valuable species. A fine-meshed naturalist's seine, used in Lake Erie, captured in one haul, very small bass, lake herring, pike-perch or pickerel, and various kinds of suckers and shiners. At certain seasons the shores swarm with small lake herring in the post-larval stage, somewhat larger and more active than the delicate and helpless larval stage. Fishery Overseer Boismier (Detroit River Division) refers* to the abundance of young fish in the shallows of Detroit River and Lake St. Clair. "It is stated," he says, "that million of young fish are destroyed by parties seining for minnows in shallow bays." It is also said that

*Dr. Hugh M. Smith, Bull. U. S. Fish Commission, 1890 p. 185.

*Report of the Department 1890, App. G., p. 194.

spawn is at times dragged ashore by the seine; but such masses of spawn are probably dislodged by storms, and as a rule the seine will not interfere with spawn, unless in localities chosen by the various kinds of bass.

It is precisely such shallows as those here referred to, with beaches of sand or pebble, in which seining is carried on. The net is, as it were, thrown around the fish within a short distance of shore, and is pulled to land. Before being hauled in both ends are secured on shore, and the net forms a complete inclosure, capturing everything within its sweep and extending in some cases as much as 1,000 feet, with 12 feet depth in the middle, though the dimensions are often less than these. Captures in the seine are of a very varied nature, and as the meshes are loose, and not usually fully open, as in a fixed net, like a pound, many fish are entangled which are of no value for market purposes. Young fish, included in this mixed catch, are mostly injured, and may be thrown ashore as useless. Further, the constant use of seines, sweeping over the shallows, has a very unfavourable effect on the shoals of small fish. They are disturbed in their migratory movements and driven into deeper water, where they are exposed to the attacks of larger fish. Indirectly, as well as directly, the schools of fry are injuriously affected. Professor Ramsay Wright has referred* to the capture of immature whitefish by herring seine nets, and pointed out that the surplus fish are used as manure when the market is glutted. Similarly, Dr. H. M. Smith,† in his report already referred to, speaks of ground where whitefish formerly spawned in considerable numbers and, where the young now appear to congregate at times, on which quantities are taken for bait, measuring $1\frac{1}{2}$ to 3 inches long. The fishermen when using the seine can hardly know the extent of injury they inflict; for when very young, our valuable good fishes are transparent, minute, and almost invisible in the meshes of the net.

That valuable fry are thus disturbed, injured and destroyed, there can be no doubt. It is impossible to avoid this where seining is carried on. But the destruction of the young of inferior species, usually regarded as worthless, is most harmful. These small fishes, or minnows, are the favourite food of pike-perch or pickerel, salmon-trout and other predaceous fish. The abundance of these more valuable kinds depends largely on the abundance of smaller varieties on which they largely live. The term minnow applied to these small fishes is used indiscriminately and embraces nearly twenty species, including some of the more valuable food fishes.

As compared with the fixed pound net, inshore, through the meshes of which the very small fry mentioned readily pass without injury, or again, with the gill-net hanging with fully extended meshes in deeper water, the seine is by far the most injurious from the point of view here considered.

No. II.—A MARINE SCIENTIFIC STATION FOR CANADA.

BY PROFESSOR PRINCE, COMMISSIONER OF FISHERIES.

At the request of the Minister of Marine and Fisheries the following report has been prepared embodying certain suggestions touching the foundation of a Marine Laboratory for the Dominion.

There is a growing feeling prevailing that our country, which in so many respects has taken a leading place among the nations in regard to fishery matters, especially in the administration of judicious fishery laws and regulations, and the accomplishment on an extensive scale of practical fishery objects such as artificial fish culture, should take a position of equality with other countries in the furtherance of marine and fresh water biological research. Proposals, indeed, have from time to time been made in this direction, and professors in our universities, as well as practical fishery authorities, have given strong expression to views in favor of a biological station for Canada, on the lines of such institutions in other countries. A period has now been

*Rep. Ont. Game and Fish Comm., 1892, p. 469.

†Bull. U.S. Fish Comm., 1890, p. 210.

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reached, it may be justly claimed, when such a suggested scheme should assume practical shape.

Possessed, as the Dominion is, of perhaps the richest and most varied fisheries in the world, the exemplar to other countries in her elaborate system of fish propagation for the replenishment of the great lakes and rivers, and a pioneer in the hatching of that valuable crustacean, the lobster, it is not surprising that the necessity is now perceived for an institution devoted to the accurate investigation of fishery problems, the elucidation and final settlement of perplexing questions which have baffled practical men, the collection of exact observations on the food, habits, and life-history of fishes, and the accumulation in this way of useful scientific knowledge in order to promote the prosperity of our coast and inland fisheries.

There are few civilized countries which have not already established such institutions. That their value is appreciated is clear from the policy of Germany, which, notwithstanding her limited coast line, has several marine laboratories, and no sooner became possessed of Heligoland, so long a British possession, than a marine station was founded there by the German Government and equipped with all the appliances for aiding the fisheries of that empire.

Directly or indirectly under the auspices of the British Government, about half a dozen marine stations carry on valuable work on different parts of the English and Scotch coasts, at Plymouth, St. Andrews, Dunbar, Grimsby, Millport, and other places, while the splendidly equipped laboratories of the United States, France, Italy, Holland, New Zealand, Australia, and other lands are famous. These have made valuable contributions to our knowledge of fish and fisheries in various parts of the world. Why should the Dominion be unable to do her part in this great work? Is it because Canada offers less field, or has fewer difficult problems to solve in connection with her fisheries? On the contrary, it is no exaggeration to say that the work done in other countries could be far surpassed by Canada, and that our waters offer unparalleled opportunities for scientific research, with the certainty of abundant and valuable results. Prolific as our fisheries are, the infinitely varied character of our maritime resources has yet to be fully understood and developed, while legislation in regard to the fisheries would be no longer hampered by difficulties and drawbacks, were a body of scientifically ascertained knowledge available.

Sir William Dawson, Mr. J. F. Whiteaves, and their colleagues, by their investigations in the Gulf of St. Lawrence, and Professor Ganong and others by researches in New Brunswick waters, have shown what a promising field for investigation exists. But the fact that year after year professors and bands of students from the United States resort to Canadian shores to carry on marine studies, preferring our prolific waters to their own, clearly proves, if proof were needed, that a Marine Station in Canada would be able to accomplish great results.

The late Professor Moseley, of Oxford, naturalist on the famous "Challenger" expedition, once declared his conviction that no fisheries could be carried on with adequate success and regulated with security unless a scientific knowledge of their conditions and character had been obtained by the researches of scientific observers. "I do not think," he declared, in London, March 31st, 1884, "that any investigation not of a strictly scientific character is of much value with regard to practical results. It is only by the most thorough scientific work that we shall ever arrive at the increasing, for example, of our supplies of oysters and lobsters." Professor Moseley had almost unequalled opportunities, during the cruise of H. M. S. 'Challenger,' for gaining an insight into the life of the sea in the most diverse regions of the globe, and it was clear to him that for the safety of the fishing industries themselves, and for the prosperity of those engaged in them, a thoroughly accurate knowledge of the conditions of life in the waters, the growth, spawning periods, and migrations of the more valuable fishes was of paramount importance. If it be the duty of Government to protect and foster the fisheries in all legitimate ways, it is equally the duty of Government to investigate the causes which render such protection necessary, and to establish sure and unquestionable grounds for action.

An opinion has prevailed to a lamentable extent that fishery questions are all purely practical, and the less that science interferes the better. But no greater error is possible. Year after year perplexing problems and difficulties have arisen in connection with the fisheries, and in order to get at the facts and causes involved, commissions of inquiry have been instituted. Such commissions have collected the views of various parties, and, on the opinions obtained, have often taken action. But opinions vary. There is hardly any unanimity, amongst those chiefly interested, upon any fishery question, and the views expressed are often so opposed to each other, that efficient action in the way of legislation has not been possible. Protective laws, regulations as to close seasons, restrictions as to traps, nets and methods of fishing, can never be satisfactorily framed if based merely upon opinions and the varied views of those interested. Men engaged in chemical industries, in engineering, farming, &c., have sought the help of science and received practical aid of the utmost value. Why should the fisheries not receive similar aid from science, and make progress under the reliable guidance of accurately ascertained knowledge? The migrations of fishes, the fluctuations observed in their abundance from season to season, their reduced numbers, or in some cases, total disappearance in certain areas, and their unexpected appearance or increased abundance in other waters, are at present largely matters of conjecture. But such movements, and such decrease or increase in the quantity of fish depend upon causes which can be discovered, and their discovery would place in the hands of fishermen the power to carry on their work to the best advantage and not by mere chance or luck. Observations on the abundance and nature of the food on the floor of the sea would no doubt be a certain guide to the movements of fishes, while changes of temperature at the sea bottom, and other conditions are of great importance. Professor McIntosh, a leading European fishery authority, has shown from laborious investigations conducted at St. Andrew's Marine Laboratory, Scotland, that with the progress of the year there is a regular sequence in the kinds of animals which people the waters of the sea in certain areas. These animals afford food for the fishes, young and adult, and that the abundance and character of the food directly affects the numbers and kind of fish frequenting certain waters needs no demonstration. Each month, indeed, seems to be characterized by the appearance of special forms of marine life. This fruitful field of investigation has never yet been entered upon in the waters of the Dominion. The first steps have yet to be taken in this and a host of other lines of study. The foundation of a marine station upon the coast would render possible the prosecution of such necessary researches. The individual efforts of naturalists can never lead to the rapid accumulation of facts necessary to a science of the Canadian fisheries. Only a properly equipped marine station can accomplish fruitful results. It would form a centre of operations whence systematic work could be carried on; where by appropriate appliances and instruments, with the skilled aid of officials, the results could be put into shape for the service of the public. Legislation has done much in regard to the fisheries, but it has often proceeded somewhat hazardously and without a trustworthy basis of knowledge. Hence conflicting regulations, alterations and amendments have too frequently followed. Special forms of fishing apparatus have been encouraged, others discouraged or prohibited, while the meshes of the various nets have been altered, according to law, at different times. Such legislation may have worked harshly in many instances, though on the whole it has been admittedly beneficial, yet no adequate experiments have ever been carried on with the object of demonstrating for instance the actual effect of mesh regulations. On the one hand, it has been argued that the size of mesh has little effect upon the capture of particular sizes of fish, in the case of certain species; while on the other hand the opposite view has been just as strongly urged. It is patent that such disputed questions could readily be settled by experiments carried on at a scientific station and an unquestionable basis of proved facts provided for future legislative action. Scientific investigations carried on by competent experimenters, would decide once and for all these debatable matters. The comparative efficiency, destructiveness, and wastefulness of various methods of fishing, could be ascertained in the same way. Other work

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would fall within the scope of a marine station, all having a most direct bearing upon the practical and mercantile aspects of the fishing industries. The investigation of the resources of the various areas along the lengthy coast of the Dominion, the thorough examination of extensive regions of the sea bottom and the determination of fishes and special products, peculiar to these various regions, are calculated to place in the fisherman's hands precisely the information which will be most valuable to him. Such knowledge directs him to new and unsuspected grounds, saves him from fruitless trials of unproductive areas, and may even bring before him valuable fishes of whose value and abundance he was not aware. The deterioration of areas once productive, the partial or total disappearance of certain fish, these and other problems can only be solved by the accurate and systematic work carried on from some central station on the coast. The results of such investigation show the causes of deterioration and may lead in some cases to practical methods of restoration to former productiveness. The introduction of new species of great market value and the creation of new industries is one of the readiest and most apparent ways in which science is able to benefit the fisheries. The nature of the food, the conditions of breeding and embryonic life, the presence or absence of enemies and hurtful influences, in short, all the conditions influencing the welfare, growth, and increase of such transferred or newly introduced species, are matters for scientific investigation, preliminary to practical steps. The introduction of the European sole (*solea vulgaris*) is one of the first experiments which would suggest itself, after the preliminary investigations had been completed. A trial has been made in the United States, but the results have not proved very satisfactory. No doubt many sandy areas, on our own coast, are well adapted for the experiment, and the English sole is now one of the most valuable of food fishes. The London market is being supplied from Norwegian and more distant waters, so inadequate is the supply obtainable in British waters. It is a species, like all the Pleuronectidæ, extremely tenacious of life, and its value in the English markets is so high that the introduction of such a fish, if successful, would prove a source of wealth to the fishing population on our coasts. Soles could no doubt be conveyed alive to the London markets, for the voyage is little longer than that of the Norwegian boats, which at present carry on a highly remunerative British trade in this delicious and esteemed fish. But the experimental introduction of new fishes, ranking high in economic importance, is secondary to the full development of the fishing resources of our waters as they at present exist. There is every probability that the thorough and systematic investigation of the fauna of our Atlantic coast, carried on from such a Marine station as Canada ought to possess, would lead to the discovery of fishes of economic value at present existing in our waters though unrecognized and unappreciated. The anchovy has been recorded, though probably determined on insufficient grounds, on the Pacific coast of the Dominion. It is highly probable therefore that this fish occurs in our Atlantic waters, and it is one of the most delicate and highly esteemed of our fishes. If so, a new and valuable industry would be readily opened up, just as in the smelt fishing recently developed in certain rivers in the Maritime Provinces. The value of the smelt was not appreciated until within the last few years and in such a river as the Miramichi the smelt fishery has risen to the position of a highly remunerative industry. From investigations pursued at the Plymouth Marine Laboratory it has been shown that on the south coast of England anchovies are plentifully captured in sprat and pilchard nets, and it has been pointed out by scientific workers at that laboratory that a regular fishery could be established. On the coasts of Holland, France, Spain and Italy, such an anchovy fishery has long been carried on with profit to the fishermen. The anchovy migrates and schools much after the fashion of the mackerel, and they are netted in a similar way, when coming into the shallow waters. Whether fishes of economic value such as the anchovy, the pilchard, the sprat &c., really inhabit our waters or not, cannot be decided in our present state of knowledge. At certain seasons vast schools of small fish, roughly classed as "Britt" or regarded as "Tinkers," invade particular portions of our littoral waters, and a thorough study of these smaller forms must yield important knowledge and throw light upon the productive-

ness and range of our fish supply. Recent fishery investigations have more and more clearly demonstrated that a knowledge of small fishes, whether small species i.e., distinct kinds, or merely the young of larger and familiar forms is of supreme value. And it is precisely of these smaller and often despised fishes that exact knowledge is most lacking. It is possible in a great degree to foretell the probable abundance or scarcity of fish in future seasons, from observations on the schools of young fish which make their appearance in certain areas. At present it is a matter of little interest to those whose living depends upon the prosperity of the fisheries, what the precise nature of these young fish may be, and their presence in the coastal waters has not been regarded as of much importance from a practical point of view. But it is not so. The studies of the scientific observer have fixed the fallacy of this common opinion, and have established, beyond doubt, that these schools of fry directly and indirectly indicate a good or bad fishing season. Directly they do this because when these schools are carefully examined by competent authorities they often prove to be the fry of fish most valued as food, or again if not themselves the young of such fishes, they form a favourite food of esteemed kinds. In the warm summer months vast schools of minute fishes—one or two inches in length, occur off the Bay of Chaleur and further north. The local fishermen regard them as young mackerel, others as herring, others as cod and hake. As a matter of fact these important schools of small fry have never been studied by any observer, and of what kind of fish they really consist has never been decided. More than this the work carried on in other countries has shown that we can never understand the fisheries, the conditions of their prosperity or decadence without a knowledge of the eggs and spawning grounds. Almost nothing is known of this great subject so far as Canadian waters are concerned. Nor can such studies be successfully carried on until a properly equipped basis of operations has been provided in a marine station where such work could be prosecuted. On the foundation of such a station these important problems would be attacked at once and much desired knowledge obtained.

Not only is a knowledge of the distribution and comparative abundance of the economic fishes in our waters needed, but the general conditions and the probabilities of success in stocking new waters, or it may be re-stocking depleted waters, require to be studied. The discovery of unnoticed or unknown species and the introduction of new and valued kinds are not only possible, but under scientific guidance may be matters of certainty. The capture of a new and valuable food fish, the tile fish, off the New England coast, in 1880, shows that useful kinds of fish may remain still to be discovered and that the treasures of our waters have not yet been fully made known by the operations of fishermen. Further, the extirpation of predatory kinds which destroy nets, food-fishes, and are a terror to the fisherman, would be a matter of study.*

A complete biological survey of the coastal waters of the Dominion is a great task, and could only be accomplished gradually. But such a work would fall within the operations of a marine station, and would be gradually pushed forward season by season until the physical conditions, the biological characteristics, the fauna and flora of every area, wherein the fishing industry is prosecuted, are made known and are available for the guidance and information of those actively engaged in fishery pursuits. Other work of a highly practical nature would come within the scope of the proposed institution.

Methods of preserving and transporting fish, improved means of drying, salting, canning, and refrigeration—in short, all the modes suggested by science for conserving the best and most attractive elements of fish food, would be thoroughly tested, and new improvements, or novel and unsuspected methods made known. The growth within the recent years of a vast industry which has proved a source of wealth to many districts, viz., the preservation of orchard fruits, is an indication of the success which may attend new methods of “putting up” economic products, and the preserving of fish in attractive marketable form is a line of industry in which very little progress has hitherto been made. The utilization of fish roe, livers, skins, and waste

* In 1892 myriads of voracious dogfish (*Acanthias*) appeared in the Bay of Fundy in the month of February.

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products, at present of comparatively small value, is a promising field there can be no doubt, if economical and ready methods be discovered of turning them to account. It remains to be seen how far existing modes can be improved, or new methods adopted, with a prospect of commercial success.

The preservation of fish on new plans is a most promising field, and one which could be without difficulty carried on experimentally in a marine station. No one acquainted with the incredibly rapid progress of the preserved fruit industry already referred to, the great strides which it has made in the Dominion, and on somewhat different lines in Great Britain, can deny that such methods, if applied to the preservation of fish, would mark a new era into the fisheries of our country. While the neatly packed products of the orchard and fruit garden find their way to the tables of all classes of the community in Britain, the United States, and other countries, and the canned lobsters and oysters prepared on our coasts are hardly less widely used, the roughly dried and salted fish of the Dominion are far less generally sought and used in our provincial cities and towns, and are unknown to a great part of the population in Britain. In appearance and comestible qualities, salt fish, dry and pickled, have not appeared to recommend themselves to English cooks and housekeepers. Yet the quality of our cod, haddock, mackerel and herring cannot be questioned—indeed it may be doubted whether the fish of any other waters are of equal excellence. Experiments leading to a superior and more attractive method of preparing and packing these fish would yield pecuniary returns more than proportionate to any extra trouble or expense in preparation. Such prepared fish would take possession of markets never yet reached by our fish merchants, and would prove much more lucrative than the coarsely prepared, and, to many, offensive, forms of cured fish, which at present are shipped to the South American, West Indian and other markets. Norway has made great advances in this direction and her attractively prepared fishery products, including many entirely novel foods, have already secured much favour in the British markets. The enterprise of Canadian merchants would not be lacking if experiments proved that new and superior methods of preserving fish could be readily applied in our own fisheries.

Science alone can afford sure ground for advance in the various lines of progress indicated in the foregoing remarks. The fisheries have largely stood aloof from scientific aid, or rather the means of scientific aid have been wanting, and its powerful influence in the way of prospering the fisheries has not been realized. But the benefits of fishery science are no longer matters of doubt, and all that is required is to afford means for pursuing exact scientific research, and for spreading amongst fishermen and others, actively engaged in the fisheries, the beneficial results of such researches and new knowledge.

It is important that a scientific fishery station should be centrally situated upon the coast, that the conditions of marine life should be favourable, so that materials for study would be at hand and obtained without difficulty or loss of time. Again, it should be within easy reach of areas in which important fisheries are carried on, that is to say, the fisheries in actual operation should be easy of access from such a station, in order that all the practical knowledge of the fishermen may be made available and suggestions or information conveyed from the scientific station to those engaged on the fishing grounds.

There are many points upon the Atlantic seaboard which might be recommended for such a marine station. The richness and varied character of the fauna in the more southerly shores of the Dominion cannot be lost sight of. To Passamaquoddy Bay and the prolific waters around Grand Manan and the Western Isles, scientific workers from the United States have been accustomed to resort season after season, and very valuable and substantial contributions to our knowledge of the sea's resources have been made by Canadian investigators in this area.

A location further north presents, however, many advantages. The lobster fishery, with the various perplexing and difficult questions connected therewith, is carried on upon the greatest scale there, and with a marine station in close proximity, the life-history, habits, migrations and breeding of the valuable crustacean could

be thoroughly investigated. The mackerel fishery, however, is carried on at a most important period of the year in the more northerly waters, and the cod fishery, though not pursued to its fullest extent off Prince Edward Island, affords material for interesting and valuable investigations respecting the food, breeding, growth, and movements of the various members of the cod tribe, all of economic importance. Areas, with the most famous and prolific oyster beds extending over them, would be readily accessible from such a station; and the bays and inlets of the Quebec, and New Brunswick shores and north shore of Nova Scotia abound with smaller fishes, such as the smelt, capelin, etc., while the fry of various species occurring there require study in order to throw light upon the future development of the fishing industry. The fauna and flora may be less rich and varied than off the southern coast of New Brunswick; but that remains to be ascertained. Certainly points might be named in the northern area, bordering on the Gulf of St. Lawrence, which offer facilities most favourable for experiments on retaining young and immature lobsters in ponds until their defenceless stages are passed, and for repeating under strict scientific supervision, the work carried on with such apparent success in Norway by Captain Dannevig, whose achievements in rearing cod and other marine fishes to an advanced and robust stage are well known.

A marine station favourably situated and properly equipped has a great work before it in Canada. The lines along which that work would, without question, progress are infinitely varied, and no sketch, however full and comprehensive, can aim to do more than indicate their nature and direction. They all end in supremely practical results, and bear directly upon the welfare and prosperity of the great fishing industries. All who have been associated with fisheries in any way realize keenly the lack of accurate knowledge on the most vital and important points. Legislation has often been hazardous on account of this lack of ascertained fact and the existence of contradictory opinions. Primarily, a marine station would be a centre for investigation and research for the promotion and diffusion of knowledge. Without interfering with this first and most important work, such a station might be also a school for teaching and for scientific study. This latter line of work would enlist for it the sympathy and help in various ways of the universities, many professors and students from which might be expected to aid in the fishery investigation carried on. There is no field so fascinating and fruitful for the biologist as the sea, and distinguished zoologists and students would no doubt desire, as volunteer workers, to help in the investigations, viewing the fine opportunities for research as amply repaying them for their labour. In this way, directly and indirectly, fishery science would gain and the fisheries of the Dominion receive that light and knowledge which in various directions is greatly needed. No doubt pure scientific research, that is research with no direct practical end in view, must be carried on by private rather than public support, and the work of marine stations, like those in Scotland and elsewhere, must have sole regard to practical questions and utilitarian ends. In other countries the existence of marine stations has proved beneficial and has helped in wise and serviceable legislation without the risk of vexatious restrictions. They have shown in numberless instances that common opinion was wholly untrustworthy and that the evidence of those practically connected with the fishing industry was frequently far astray, and that commonly expressed views were the reverse of actual facts. Especially has this been the case with respect to the spawning and growth of marine food fishes. Government marine stations could no doubt rely for much aid upon certain of the cruisers engaged in the Fisheries Protection Service, but the main work of the station being of a delicate and precise nature must be carried on in the rooms of the laboratory. Apart from the work of collecting and making observations on the food, migrations and distribution of fishes, and the modes of capture, the more important results can be obtained only by laborious and prolonged work, with the aid of the instruments and books provided in the laboratory itself.

It is not too much to anticipate that the benefits resulting from the establishment of a marine station at some central point as indicated, would make obvious the necessity of others. The vast extent of coast and the varying character

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of the littoral waters would imply such a development of this work. Certainly a more northern and a more southern marine station in the future would promote the great work of thorough investigation. The value and extent of the lake fisheries, in a similar way, would call for an inland station, in order that the conditions of life in these vast inland seas might be better understood. Certainly the practical benefits of a more trustworthy knowledge of our marine and fresh water fisheries can alone lead to their prosperity and growth in the future. Holland has established a floating marine station which can be moved season by season from one point of the coast to another, and with one permanent marine station as a central institution, such subsidiary stations, migratory or otherwise, might be found useful as secondary adjuncts in a work so extensive.

EDWARD E. PRINCE.

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APPENDICES

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APPENDIX No. I.

SCHEDULE of Fishery Officers in the Dominion of Canada for the Year,
as revised to December, 1893.

PROVINCE OF ONTARIO.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Capt. E. Dunn.....	Fishery Officer....	Owen Sound.	Having jurisdiction over Georgian Bay and the Great Lakes.
Capt. A. M. MacGregor.	do	Goderich	Sailing master of the SS. "Bayfield," having jurisdiction over the whole province of Ontario.
Donald F. Macdonell....	Overseer....	Port Arthur	The waters of Lake Superior and its tributaries from Pigeon River to Cape Gargantua.
Thos. H. Elliott	do	Sault Ste. Marie..	From the head of Lake Superior to the easternmost mouth of French River, Algoma.
J. K. McDonald.....	do	Toronto	Lake Kagewong, Manitoulin Island.
John Jackson.....	do	Midland.....	That portion of the waters of Georgian Bay, extending from French River to Point Marks with counties opposite, including the mouths of Severn and Muskoka Rivers.
John Donaldson	do	Collingwood	That portion of the waters of Georgian Bay, extending from Point Marks to Point Boucher, including Christian, Beckwith and other islands and the surrounding waters; also Nottawasaga River.
John Hoar.....	do	Lafontaine.....	About 18 miles of the waters of Georgian Bay, around Christian Island.
Robt. Edmonstone.....	do	Ballaclava.....	That portion of the waters of the Georgian Bay, extending from Allenwood to Colpoy's Bay.
Chas. Briggs.....	do	Paisley	About 70 miles of the waters of Lake Huron, from Cape Hurd to Southampton, besides the inland waters of the county of Bruce, south of division line between Amable and Albermarle, comprised within an area of about 800 square miles.
H. W. Ball.....	do	Goderich	About 60 miles of the waters of Lake Huron from Southampton to Goderich.
H. B. Quarry.....	do	Parkhill.....	About 65 miles of the waters of Lake Huron extending from Goderich to Blue Point.
J. C. Pollock.....	do	Forest.....	About 45 miles of the waters of Lake Huron and St. Clair River, extending from Blue Point, on Lake Huron, to Baby's Point on River St. Clair.
.....	do .....	.....	About 30 miles of the waters of Lake St. Clair, from Little Lake to its head.
Joseph Boismier.....	do	Sandwich	The waters of Lake St. Clair, from the division line between the townships of Dover West and Dover East to the mouth of Detroit River, and from thence to its outlet.
David Girardin.....	do	Point Pelee Island	About 50 miles of the waters of Lake Erie, around Point Pelee Island and adjacent islands.
Horace Bartlett	Warden ...	North Harbour Island.	About 20 miles of the waters of Lake Erie, around North Harbour and Middle Sister Islands.
Everitt Wigle.....	Overseer....	Leamington	That portion of Lake Erie fronting on the county of Essex.
Hy. Linley.....	do	Cedar Springs	About 50 miles of the waters of Lake Erie, fronting on the county of Kent.
Wm. Freeland.....	do	St. Thomas.....	About 110 miles of the waters of Lake Erie, fronting on the county of Elgin.

SCHEDULE of Fishery Officers, &c.—*Continued.*PROVINCE OF ONTARIO—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
David Sharp.....	Overseer ..	Port Ryerse ..	About 70 miles of the waters of Lake Erie, fronting on the counties of Norfolk and part of Haldimand as far as South Cayuga.
Chas. H. McCrae.....	do	Dunnville	About 10 miles of the waters of Lake Erie, from Cayuga to Moulton Bay and Grand River (30 miles), from mouth to Caledonia.
Charles W. Evans.....	do	Cayuga.....	The waters of Grand River, from the Division Line between North Cayuga and Camboorough, on the east, to Caledonia, on the west.
Fred. Kerr.....	do	Hamilton	Having jurisdiction over all Ontario, but district proper comprises about 50 miles of the waters of Lake Ontario, from Brant House, Burlington Beach, to Niagara, including Niagara River.
Wm. Sargent.....	do	Bronte.....	About 20 miles of the waters of Lake Ontario, extending from Port Credit to Burlington Beach, at Brant House.
Wm. Helliwell.....	do	Highland Creek...	About 26 miles of the waters of Lake Ontario, fronting on the county of York.
Chas. Gilchrist.....	do	Port Hope.....	About 40 miles of the waters of Lake Ontario, fronting on the county of Northumberland; together with Rice Lake and tributaries, about 60 square miles of water.
Chas. Perry.....	do	Whitby.....	That portion of Lake Ontario, fronting on the county of Ontario South.
W. P. Clarke.....	do	Belleville.....	The whole Bay of Quinté, from Mill Point to head waters of said bay in the township of Murray.
Joseph Redmond, jun.	do	Picton.....	About 90 miles of the waters of Lake Ontario, fronting on the county of Prince Edward.
E. H. Sills.....	do	Napanee.....	About 35 miles of the waters of Lake Ontario, fronting on the counties of Lennox and Addington, and upper part of Amherst Island; also the inland waters of the counties of Lennox and Addington, comprised within an area of about 1,600 square miles.
R. R. Finkle.....	do	Bath.....	About 25 miles of the waters of Lake Ontario, fronting on the township of Earnestown in the counties of Lennox and Addington, and the lower part of Amherst Island.
A. H. Crosby.....	do	Belleville.....	That portion of the waters of the Bay of Quinté from Three Brothers' Island, near Kingston, to Trenton, at the head of the Bay.
Peter Kiel.....	do	Wolfe Island.....	About 60 miles of the waters of Lake Ontario, around Wolfe, Simcoe, Horse-shoe and Pigeon Islands.
Wm. Ward.....	do	Toronto.....	The waters around Toronto Island including Toronto and Ashbridge Bays and River Don.
Thomas Merritt.....	do	Kingston.....	About 20 miles of the waters of Lake Ontario fronting on the township of Storrington, Pittsburgh and Kingston, county Frontenac, including part of Bay of Quinté and River St. Lawrence.
John Cox.....	do	Howe Island.....	About 16 miles of the waters of Lake Ontario and River St. Lawrence, around Howe Island.
Nassau Acton.....	do	Gananoque.....	About 6 miles of the waters of the River St. Lawrence, from Wolfe Island to Jack Straw Lighthouse, together with the waters around Admiralty group of Islands; also Gananoque River, comprising 10 miles inland waters.

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SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF ONTARIO—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
J. G. Wallace.....	Warden....	Ivy Lea.....	About 10 miles of the waters of the River St. Lawrence, extending from Jack Straw Lighthouse, to Rockport, including the islands therein.
Henry Hunt.....	do	Rockport.....	The waters of River St. Lawrence around the LaRue's Island.
John H. Davis.....	Overseer....	Gananoque.....	The waters of the River St. Lawrence extending from Sheriff's Point to Head of Grenadier Island.
Wm. Poole.....	do	Poole's Resort....	About 32 miles of the waters of the River St. Lawrence, extending from Rockport to Prescott.
Sydney Pattison.....	Warden....	Rockport.....	About 32 miles of the waters of the River St. Lawrence from Gananoque to Brockville.
John Mooney.....	Overseer....	Maitland.....	About 60 miles of the waters of the River St. Lawrence from Brockville to Cornwall.
Robt. P. Boyd.....	do	Lyn.....	About 6 miles of the waters of the River St. Lawrence, extending 3 miles above and 3 miles below Cole's Shoal Lighthouse.
Donald J. McDonald..	do	Alexandria.....	That part of St. Lawrence River fronting on the counties of Stormont and Glengarry, including the inland waters of said counties.
Olivier Miron.....	do	Alfred.....	The waters of the South Nation River, county of Prescott, comprising about 50 miles of inland waters.
Jas. O. Hyndman.....	do	South Mountain..	For that portion of the South Nation River, flowing through the counties of Dundas and Glengarry, including the inland waters of said counties.
W. W. Boucher.....	do	Ottawa.....	The waters of the Ottawa River and its tributaries, extending from Ottawa to the town line boundary of Fitzroy Township, in the county of Carleton.
Jas. McKenzie.....	do	Pembroke.....	The Ottawa River, extending from the head of Allumette Rapids to Mattawa.
Archibald Acheson...	do	Westmeath.....	About 25 miles of the Ottawa River, comprising Lower Allumette and Coulonge Lakes.
J. S. Richardson.....	do	Sturgeon Falls...	The waters of Lake Nipissing, Mattawa River and French River and tributaries.
David E. Bastedo.....	do	Bracebridge.....	The inland waters of the townships of Macauley, McLean, Ridout in N. R. Ontario Co., and Franklin, Brumel and Stephenson in Muskoka.
Geo. R. Steele.....	do	Lorimer Lake....	The inland waters of the townships of Cowper, Foley, Christie, McDougall, McKellar, Ferguson, Carling, Shawanaga, Burpee, Hagerman, Harrison, Burton, McKenzie and Ferrie, in the districts of Muskoka and Parry Sound, comprised within an area of about 1,000 square miles.
Edmund Forsyth.....	do	Loring.....	The inland waters of Parry Sound, in the townships of Walbridge, Brown, Wilson Mills, Mowat, Blair, McKonkey and Hardy.
J. G. Rumsey.....	do	Huntsville.....	The inland waters of the townships of Chaffey, Cardwell, Stisted, Sinclair, Bethune, Monteith, McMurrich, Perry, Spence, Ryerson, Armour and Proudfoot, in the districts of Muskoka and Parry Sound, comprised within an area of about 1,000 square miles.
Wm. Lockhart.....	do	Denville.....	The inland waters of the townships of Croft, Chapman, Strong, Jolly, Ferries, Lount, Machar, Laurier, Mills, Fringle, Gurd and Himsworth, in the districts of Muskoka and Parry Sound, comprised within an area of about 1,000 square miles.

SCHEDULE of Fishery Officers, &c.—*Continued.*PROVINCE OF ONTARIO—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Henry W. Gill.....	Overseer..	Ufford.....	Lakes Rosseau and Skelton, in the county of Simcoe and districts of Muskoka and Parry Sound.
Henry Castle.....	do	Gravenhurst.....	Lakes Muskoka and Joseph, in the county of Simcoe.
L. S. Sanders.....	do	Barrie.....	About 110 miles of the waters of the north shore of Lake Simcoe and its tributaries, Couchiching and Holland Rivers.
E. H. Cameron.....	do	Beaverton.....	Lake Simcoe from Cook's Bay to Beaverton.
Geo. Clarke.....	do	Orillia.....	The waters of Lake Couchiching and Severn River, in the counties of Simcoe, Muskoka and Ontario.
Wm. McDermot.....	do	Beeton.....	The inland waters of the south riding of the county of Simcoe, comprised within an area of about 900 square miles.
H. McFayden.....	do	Durham.....	The head waters of Saugeen River and tributaries, comprising an area of about 1,000 square miles.
Orra Bishop.....	do	Wilkesport.....	The north branch of Sydenham River, from junction with main river to its sources, comprising about 20 miles.
Peter McCann.....	do	London.....	About 65 miles of the River Thames, from Wardsville to London.
Theo. Peltier.....	do	Dover South.....	About 25 miles of the River Thames, from Lewisville to its mouth.
W. P. Croome.....	do	Brantford.....	About 150 miles of the waters of the Grand River and its tributaries, from Brantford upwards.
Geo. Henwood.....	do	do	The inland waters of the counties of Brant, Waterloo, Oxford, Norfolk and Haldimand.
W. B. Jelly.....	do	Bowling Green.....	The inland waters of the North Riding of the county of Wellington, comprised within an area of about 600 square miles.
Joseph Graham.....	do	Claude.....	About 25 miles of the waters of River Credit, extending from Orangeville to Norval; together with the inland waters of the townships of Mono, East Garafraxa, Amaranth, Albion, Luther, Melancthon, Erin, Caledon, Eramosa and Esquesing, comprised within an area of about 500 square miles.
David Coleman.....	do	Alton.....	The inland waters of the county of Cardwell, comprised within an area of about 400 square miles.
Alex. Blakely.....	do	Port Credit.....	About 1½ miles of the waters of the River Credit, from Norval to its mouth, in the county of Peel.
Nelson Simmons.....	do	Meyersburg.....	The waters of Trent River, in the counties of Northumberland and Hastings, comprising about 80 miles.
John Martin.....	do	Raglan.....	Lake Scugog, including Lindsay and Scugog Rivers, in the counties of Durham, Victoria and Ontario, about 50 miles.
J. C. Bowen.....	do	Marmora.....	Crow Lake, Belmont Lake and Crow River, in the counties of Hastings and Peterboro'.
Geo. W. Fitzgerald.....	do	Lakefield.....	The inland waters of the county of Peterboro' within the townships of Harvey, Burleigh, Dummer, Douro, Smith and Ennismore.
David Breeze.....	do	Peterboro'.....	Otonabee River, extending from Peterboro' to Rice Lake, in the county of Peterboro'.
Wm. Gainforth.....	do	Haliburton.....	The waters of Gull and Burnt Rivers and tributaries, together with Drag, Eagle, Moose, Redstone, Crooked and other lakes, lying within the east riding of the county of Peterboro', and comprised within an area of about 400 square miles.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF ONTARIO—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
B. H. Sweet.....	Overseer.....	Bancroft.....	The inland waters of the townships of Wollaston, Limerick, Cashel, Farraday, Dunganon, Mayo, Herschel, Monteagle, Carlow, McClure, Wicklow, Bangor, in the county of Hastings, and comprised within an area of about 1,000 square miles.
H. R. Purcell.....	do.....	Enterprise.....	The inland waters of the townships of Camden, Portland, Loughboro', Sheffield and Kennebec, in the counties of Addington and Frontenac, comprised within an area of about 500 square miles.
Robt. A. Gilbert.....	do.....	McLaren Depot.....	The inland waters of the townships of Palmerston, Clarendon, North Canonto, South Canonto and Miller, in the county of Addington, and comprised within an area of about 500 square miles.
George Lake.....	do.....	Tichbourne.....	The inland waters of the townships of Bedford, Hinchinbrooke, Olden and Oso, in the county of Frontenac, and comprised within an area of about 400 square miles.
Samuel Boddy.....	do.....	Athens.....	Upper Beverley Lake, Bass Lake, Little Lake, Wiltse Lake and Mud Lake, in the county of Leeds.
David W. Edgar.....	do.....	Morton.....	Upper Beverley Lake and tributaries to Morton and Lyndhurst and Griffin Lake, in the county of Leeds.
John Moorhead.....	do.....	Long Point.....	From Lyndhurst to the division line, between Leeds and Lansdowne, in the county of Leeds.
James Greer.....	do.....	Outlet.....	Gananoque River from Marble Rock to division line, between the township of Leeds and Lansdowne, including South Gananoque and Round Lake and Cherry Pound, in the county of Leeds.
Wm. Hicks.....	do.....	Athens.....	The waters of Charlestone Lake, in the county of Leeds.
George Jeacle.....	do.....	Westport.....	The waters of Rideau, Upper Rideau, Openicon, Otty, and neighbouring lakes, in the county of Leeds, comprised within an area of about 200 square miles.
Eph. Deacon.....	do.....	Bolingbroke.....	The waters of River Tay and tributaries and Fall Bay River, in the county of Lanark, comprising about 35 miles.
Alexander Wilson.....	do.....	Carleton Place.....	About 60 miles of the waters of Mississippi River and Lake, in the county of Lanark.
R. O. Campbell.....	do.....	Kemptville.....	Rideau River and tributaries, from Ottawa to Burritt's Rapids, including Jock River, in the county of Carleton, comprising 55 miles.
Matthew Riddell.....	do.....	Mohr's Corners.....	Ottawa River, from the eastern town line boundary of Fitzroy to eastern town line of McNab, including Lake des Chats.
George Russell.....	do.....	Arnprior.....	Ottawa River, extending from the eastern town line boundary of McNab to the western boundary of Horton, having joint jurisdiction over Lake des Chats.
M. L. Russell.....	do.....	Renfrew.....	The waters of Bonnechère River and tributaries, in the county of Renfrew, comprising about 50 miles.
Hugh Gallagher.....	do.....	Lake Clear, county Renfrew.	The inland waters of townships Sebastopol, Radcliff, Lyndoch and Gratton, in the county of Renfrew, comprised within an area of about 400 square miles.
Geo. Douglas.....	do.....	Snake River.....	The waters of Muskrat Lake and Snake River, in the county of Renfrew, comprised about 25 miles.

SCHEDULE of Fishery Officers, &c.—*Continued.*PROVINCE OF ONTARIO—*Concluded.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Walter Yuill.....	Overseer....	Calabogie.....	The waters of Calabogie Lake and the inland waters, of the township of Bagot, county of Renfrew, comprised within an area of about 100 square miles.
Jas. Colclough.....	do	Rat Portage.....	Lake of the Woods.
R. J. N. Pither.....	do	do	Lake of the Woods. (Indian Agent.)
James McCracken	do	Couchiching.....	Rainy Lake and Lake Seul. do
J. McIntyre.....	do	Fort William.....	Eagle Lake. do
J. P. Donelly.....	do	Port Arthur	Nepigon River. do

PROVINCE OF QUEBEC—TIDAL DIVISION—SOUTH SHORE.

Wm. Wakeham.....	Fishery Officer.	Gaspé Basin.....	Lower St. Lawrence River and Gulf.
J. U. Gregory.....	Agent of M. and F., and Fishery officer.	Quebec.....	Having jurisdiction in the whole province of Quebec.
J. A. Verge.....	Overseer....	Cross Point.....	The estuary division of the River Restigouche, extending from Point Maguasha to Head of Tide, on the Quebec side, and from Dalhousie to Head of Tide on the New Brunswick side, comprising about 60 miles.
Pierre Cyr.....	do	Nouvelle	About 35 miles of the waters of Bay des Chaleurs, extending along the coast from Maguasha to Grand Cascapedia River, including the estuary thereof.
John Smith.....	do	New Carlisle.....	About 40 miles of the waters of Bay des Chaleurs, extending along the coast from the mouth of Grand Cascapedia River to Paspébiac.
Walter C. Ross.....	do	Hopetown.....	About 30 miles of the waters of Bay des Chaleurs, extending along the coast from Paspébiac to Point Macquereau.
Henry Jones.....	do	Little River West, Gaspé.	That portion of the waters of the county of Gaspé from corner of the Beach to Point Macquereau, including Bonaventure Island, Little Pabos, Grand Pabos and Grand Rivers.
Geo. T. Annett.....	do	Peninsula, Gaspé.	That portion of the waters of the county of Gaspé from Cape Rosier to corner of the Beach, including Dartmouth, York, St. John and Malbaie Rivers.
Pierre Thériault.....	do	Griffin Cove, Gaspé	That portion of the waters of the county of Gaspé, from Faure Point to Cape Rosier.
J. A. Chevrier.....	do	Amherst.....	About 100 miles of the waters of the Gulf of St. Lawrence around the Magdalen Islands.
P. L. Joncas.....	Officer and Collector of Customs.	House Harbour, Magdalen Islands	All the Magdalen Islands except Amherst and Entry Islands. Specially connected with the Fishing Bounty.
Joseph Lemieux	Overseer....	Montlouis	About 80 miles of the waters of the south shore of the River St. Lawrence, fronting on the county of Gaspé, and extending from Cape Rosier to Montlouis.
Jos. I. Létourneau	do	Ste. Anne des Monts.	About 80 miles of the waters of the south shore of the River St. Lawrence, fronting on the county of Gaspé, and extending from River Ste. Anne des Monts to Cap Chatte.
Johnny Joncas.....	do	Matane.....	About 54 miles of the waters of the south shore of the River St. Lawrence, fronting on the county of Rimouski, and extending from Cap Chatte to River Blanche; together with the River Matane, comprising about 12 miles of inland waters.
L. E. Grondin	do	Rimouski.....	About 45 miles of the waters of the south shore of the River St. Lawrence, fronting on the county of Rimouski, and extending from River Blanche to Rimouski.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF QUEBEC—TIDAL DIVISIONS—NORTH SHORE.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
.....	Overseer	Rimouski	About 35 miles of the waters of the south shore of the River St. Lawrence, fronting on the county of Rimouski, and extending from Rimouski, to the division line between the counties of Rimouski and Temiscouata.
Nap. Levesque	do	Isle Verte	About 30 miles of the waters of the south shore of the River St. Lawrence, fronting on the county of Temiscouata.
Xavier Pelletier	do	Ste. Anne de la Pocatière.	About 45 miles of the waters of the south shore of the River St. Lawrence, fronting on the county of Kamouraska.
.....	do	.....	About 70 miles of the waters of the south shore of the River St. Lawrence, fronting on the counties of L'Islet, Montmagny, Bellechasse and Lévis, extending from Ste. Anne de la Pocatière to Point Lévis.
L. P. Huot	do	St. Roch de Québec	About 50 miles of the waters of the north and south shores of the River St. Lawrence, around the Island of Orleans.
U. Bhéreur	do	Malbaie	About 60 miles of the waters of the north shore of the River St. Lawrence, fronting on the county of Charlevoix, and extending from River du Gouffre to the division line between the counties of Charlevoix and Saguenay.
L. N. Catellier	do	Tadoussac	About 80 miles of the waters of the north shore of the River St. Lawrence, fronting on the county of Saguenay and extending from the division line between the counties of Charlevoix and Saguenay to Bersimis; and the tidal waters of the River Saguenay from its mouth to Chicoutimi, comprising 70 miles; in all, 150 miles.
N. A. Comeau	do	Godbout	About 115 miles of the waters of the north shore of the Gulf of St. Lawrence, fronting on the county of Saguenay and extending from Manicouagan to Baie des Rochers, including the estuaries of Godbout, Trinity and Pentecost Rivers.
T. Mignault	do	Montmagny	About 75 miles of the waters of the north shore of the Gulf of St. Lawrence, fronting on the county of Saguenay and extending from Baie des Rochers to Point St. Charles, including the estuaries of Marguerite and Moisie Rivers.
Geo. Duberger	do	Pointe-à-Pic, Co. Charlevoix.	About 105 miles of the waters of the north shore of the Gulf of St. Lawrence, fronting on the county of Saguenay and extending from Point St. Charles to Esquimaux Point, including the estuaries of the St. John and Mingan Rivers.
Geo. Gaudin	do	Cape Cove, Gaspé	About 100 miles of the waters of the north shore of the Gulf of St. Lawrence, fronting on the county of Saguenay and extending from Esquimaux Point to Natashquan River, including the estuaries of the Rivers Agwanus, Nabissippi and Natashquan.
Jean Legouvé	Warden	Lobster C've, Gaspé	About 140 miles of the waters of the north shore of the Gulf of St. Lawrence, fronting on the county of Saguenay and extending from Cape Whittle to Checatca.
W. H. Whitely	do	St. John's, Nfld.	About 65 miles of the waters of the north shore of the Gulf of St. Lawrence, fronting on the county of Saguenay and extending from Checatca to Blancs Sablons, the boundary line between Quebec and Newfoundland, on the coast of Labrador, including the estuary of the Esquimaux River.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF QUEBEC—NON-TIDAL DIVISIONS.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Alf. Blais.....	Overseer.....	Causapsal.....	About 30 miles of the waters of Lake and River Metapedia, in the county of Bonaventure, from head of Lake to Causapsal.
Henri Côté.....	do.....	Baie St. Paul.....	Lakes in rear of Murray Bay and Bay St. Paul.
Jos. Simard.....	do.....	Ste. Agnès.....	do.....
J. F. Picotin.....	do.....	Drummondville.....	About 60 miles of the River St. Francis, in the counties of Yamaska and Drummond, extending from its mouth to Richmond.
N. A. Beach.....	do.....	Georgeville.....	The eastern shore of Lake Memphremagog, in the county of Stanstead, and waters extending to the middle of the Lake.
Horace Green.....	do.....	East Bolton.....	The western shore of Lake Memphremagog, in the county of Brome, and waters extending into the Lake.
Sylvester E. Pheps.....	do.....	Bolton Centre.....	Inland waters, township of Bolton, East and west, in the county of Brome.
P. C. Ourke.....	do.....	Somerset.....	The inland waters of the county of Megantic, comprised within an area of 850 square miles.
J. Laberge.....	do.....	Châteauguay.....	About 40 miles of the waters of the River St. Lawrence, fronting on the county of Châteauguay, including Châteauguay River.
John Kelly.....	do.....	Beauharnois.....	About 50 miles of the waters of River St. Lawrence, fronting on the counties of Beauharnois and Huntingdon; together with about 35 miles of the waters of Châteauguay and Trout Rivers.
J. O. Dion.....	do.....	Chambly Canton.....	About 43 miles of the Richelieu River, extending from Sorel to Richelieu Village.
Jas. Finlay.....	do.....	St. Johns East.....	About 30 miles of the waters of Richelieu River, extending from St. Johns to Lake Champlain.
P. E. Luke.....	do.....	Philipsburg.....	About 15 miles of the waters of Missisquoi Bay and Pike River, in the county of Missisquoi.
P. W. Nagle.....	do.....	Sherbrooke.....	The inland waters of the county of Stanstead, comprised within an area of about 540 square miles.
Joel Shurtleff.....	do.....	Compton.....	The inland waters of the county of Compton, comprised within an area of about 1,600 square miles.
A. L. Darche.....	do.....	Sherbrooke.....	The waters of the counties of Richmond and Wolfe.
Allan McLeod.....	do.....	Echo Vale.....	About 10 miles of the waters of Lake Megantic and Spider in the county of Compton.
W. G. Green.....	do.....	Knowlton.....	Brome Lake.
John McCaw.....	do.....	Sherbrooke.....	Lakes in counties of Megantic and Wolfe.
V. Veilleux.....	Warden.....	St. Ephrem de Tring.....	The inland waters of the county of Beauce, comprised within an area of about 1,600 square miles.
Chas. Vadeboncœur.....	Overseer.....	Three Rivers.....	About 25 miles of the River St. Lawrence and Lake St. Peter, fronting on the county of St. Maurice, including the inland waters of said county, and the city of Three Rivers.
Denis Shoener.....	do.....	Pierreville.....	That portion of Lake St. Peter fronting on the county of Yamaska and the River St. Francis within the limits of the said county.
Geo. Boisvert.....	do.....	Bécancour.....	About 36 miles of the waters of the River St. Lawrence and Lake St. Peter, fronting on the county of Nicolet.
Joseph Charbonneau.....	do.....	St. Césaire.....	Yamaska River and its tributaries from West Farnham to St. Hugues, including Black River.
S. A. Grant.....	do.....	Louiseville.....	About 35 miles of the waters of the River St. Lawrence and Lake St. Peter, fronting on the counties of Maskinongé and Berthier, including the islands in front.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—Continued.

PROVINCE OF QUEBEC—NON-TIDAL DIVISIONS—Concluded.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Wm. Ritchie.....	Overseer....	Chilton.....	Inland waters of the county of Montcalm.
Gédéon, Magnan.....	do	L'Épiphanie.....	St. Lawrence River fronting on the counties of L'Assomption and Verchères.
Jos. Boivin.....	do	River Beaudet.....	About 20 miles of the waters of the River St. Lawrence, fronting on the county of Soulanges, and extending from Point Beaudet to Coteau Landing.
Narcisse Lavallée.....	Warden.....	Sorel.....	That portion of the waters of the River St. Lawrence fronting on the county of Richelieu, including the islands therein.
John Morris.....	Overseer....	St. Lambert.....	About 50 miles of the waters of the River St. Lawrence, fronting on the counties of Laprairie, Chambly et Verchères.
Julien Montpetit.....	do	Isle Perrot.....	About 15 miles of the waters of the River St. Lawrence, surrounding Isle Perrot.
Jos. Lauzon.....	do	Terrebonne.....	The Rivers Jésus and des Prairies, comprising about 50 miles.
Jos. Filiatrault.....	do	Ste. Adèle, Terrebonne Co.	The inland waters of the townships of Morin and Beresford, in Terrebonne and Wolfe Counties, and de Salaberry and Grandison, in Argenteuil county, comprised within an area of about 500 square miles.
Toussaint Cloutier.....	do	Piedmont do	The inland waters of the townships of Abercrombie, Wexford and Kilkenny, in Terrebonne and Montcalm Counties, comprised within an area of about 300 square miles.
Damien Filiatrault.....	do	Ste. Rose, Laval Co.	That portion of River Jésus from its mouth to division line between Ste. Rose and St. François de Sales in Laval and Terrebonne Counties.
R. W. Jones.....	do	St. Andrew's East.	About 15 miles of the waters of the north side of the Ottawa River extending from Oka to Carillon.
Theo. Sabourin.....	do	Rigaud.....	About 30 miles of the waters of the south side of the Ottawa River, extending from Cascades to Point Fortune.
Jos. Marion.....	do	Hull.....	The waters of the Ottawa River, fronting on the county of Ottawa, comprising about 75 miles.
Erwin Mohr.....	do	South Onslow.....	The waters of the Ottawa River, fronting on the county of Pontiac, extending from the division line between the counties of Ottawa and Pontiac to Fort Coulonge and comprising about 50 miles.
J. T. Coghlan.....	do	Chapeau.....	The waters of the Ottawa River, fronting on the county of Pontiac, extending from Fort Coulonge to Des Joachims, and comprising about 75 miles.
Robt. Joynt.....	Warden.....	Joynt.....	The inland waters of the township of Masham, in the county of Ottawa, including Bernard Lake, comprised within an area of about 90 square miles.
Emiel Weisener.....	Overseer....	Blanche.....	The waters of the township of Mulgrave and Lathbury, Ottawa County.
R. C. W. McCuaig.....	do	Ottawa.....	The inland waters of the township of Wakefield, Ottawa County.

PROVINCE OF NOVA SCOTIA.

Bertram, A. C.....	Inspector of Fisheries.	North Sydney.....	District No. 1, comprising the Island of Cape Breton.
Hockin, Robert.....	do	Pictou.....	District No. 2, comprising the counties of Cumberland, Colchester, Pictou, Antigonish, Guysborough, Halifax and Hants.

SCHEDULE of Fishery Officers, &c.—*Continued.*PROVINCE OF NOVA SCOTIA—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Kinney, J. R.	Inspector of Fisheries.	Yarmouth.	District No. 3, comprising the counties of Lunenburg, Queen's, Shelburne, Yarmouth, Digby, Annapolis and King's.
Johnston, H. W.	Agent M. & F. & Fishery Officer.	Halifax.	Having jurisdiction over the whole of Nova Scotia.
		<i>Annapolis County.</i>	
Bailey, W. M.	Overseer.	Round Hill.	The county of Annapolis.
		<i>Antigonish County.</i>	
Aylmer, J. R.	Warden.	Pomquet Forks, Antigonish.	From mouth of harbour to Forks; from thence on the Pomquet River to V. Chisholm's Mills, and from Forks, on the Black River, to Falls.
Cameron, Lochlin.	do.	Fraser's River, Antigonish.	From McWilliam's bridge to head of lake.
Chisholm, Hugh.	do.	Lower South River, Antigonish.	From Antigonish Harbour to McWilliam's, or St. Andrew's Bridge.
Chisholm, Donald.	do.	Salt Springs, Antigonish.	From Trotter's Mill Brook to W. Thompson's Dam.
Dexter, John.	do.	Antigonish.	From Antigonish Harbour (foot of marsh) to Trotter's Mill Brook; thence up said brook to Trotter's Mill, including both branches of West River and Bailey's Brook.
Fraser, Duncan.	do.	St. Joseph.	From Pinkeytown Bridge to Stewart's Mill.
Macadam, Alex.	do.	West River.	From Thompson's Dam to Addington Forks Bridge.
McDougall, Arch'd.	do.	McNair's Cove, Cape George.	From John McDonald, (Bun's) Cove, north side of Cape George, to Crebbing Head, St. George's Bay.
McInnes, Donald.	do.	Addington Forks.	Addington Forks.
Randall, Albert.	do.	Bayfield.	From shore to lake.
		<i>Cape Breton County.</i>	
Quinan, Francis.	Overseer.	Sydney.	Division No. 1.—The seacoast and inland waters of the county of Cape Breton lying north of a line drawn from the south end of Forks Lake to False Bay, extending west as far as a line drawn from the same point on Forks Lake to the head of the North West Arm of Sydney Harbour; including the south side of North West Arm, South Arm, south side of Sydney Harbour to Low Point, and all the coast waters from Low Point to False Bay.
Hickey, Richard.	do.	North Sydney.	Division No. 2.—The sea coast and inland waters of the county of Cape Breton lying north and west of a line drawn from the head of the North West Arm of Sydney Harbour to the south end of Forks Lake; thence to Grand Narrows Bridge.
Burke, William.	do.	Mira Ferry.	Division No. 3.—The sea coast and inland waters of the county of Cape Breton lying south of a line drawn from the south end of Forks Lake to False Bay, and bounded on the south by a line drawn from the same point on Forks Lake to Marion Bridge, on Mira River; thence to Eagle Head on Gabarous Bay, including that portion of Mira River, east of Marion Bridge; also the waters around Scattarie Island.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF NOVA SCOTIA—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
		<i>Cape Breton County</i> —Concluded.	
McDonald, Alexander...	Overseer...	West Bay.....	Division No. 4.—The sea coast and inland waters of the county of Cape Breton, south of a line drawn from the south end of Fork's Lake to the Grand Narrows Bridge, and bounded on the east by a line drawn from the south end of Forks Lake to Marion Bridge, thence to Eagle Head on Gabarous Bay, including all that portion of Mira River lying south-west of Mira Bridge; also Gabarous and Fourchu Bays.
		<i>Colchester County.</i>	
Gass, H.....	do	Tatamagouche	Northern Division, county Colchester, comprising Tatamagouche Bay, French and Waugh's Rivers.
Pollock, R. J.....	do	Lower Stewiacke..	Stewiacke River (lower portion).
		<i>Cumberland County.</i>	
Fowler, Elijah	do	Parrsboro'	Cumberland county, Western Division, including all streams flowing into the Bay of Fundy.
Gilroy, Geo. W.....	do	Oxford.....	Cumberland county, Eastern Division, embracing all streams emptying into the Straits of Northumberland.
Bland, George.....	do	Wallace Bridge...	County of Northumberland.
Wills, A. M.....	do	Pugwash.....	Smelt and oyster fisheries at Pugwash.
		<i>Digby County.</i>	
Collins, J. A.....	do	Westport.....	Western Division of Digby county, comprising the waters of St. Mary's Bay. Long and Brier Islands.
Cossoboom, J. W.....	do	Rossway.....	Eastern Division of Digby county, comprising the waters of Digby county, except those of St. Mary's Bay, and around Long and Brier Islands.
Journey, Robert.....	Warden....	Weymouth	Sissiboo River.
McKay, Lochlin.....	do	Barton.....	St. Mary's Island.
Potter, Chas. T.....	do	Joggins River....	Joggins River to Bear River.
		<i>Guysborough Co.</i>	
Cameron, Wm.....	Overseer..	Guysborough	Having jurisdiction over the whole county of Guysborough.
McQuarrie, Allan.....	do	Sherbrooke.. ..	do do do
		<i>Halifax County.</i>	
Bartlett, John H.	do	Terrance Bay.....	Having jurisdiction over the whole county of Halifax.
Gaston, Robert.....	do	Pope's Harbour...	do do do
Rowlings, Geo.....	do	Musquodoboit Hr.	do do do
		<i>Hants County.</i>	
.....	do .....	.....	Hants county, Western Division, from western county line to Walton.
Colter, John	Warden....	Millford.....	Shubenacadie River.
Horne, Arch.....	do	Enfield.....	South end of Shudenacadie and Nine Mile River.
Mosher, James.....	do	Brooklyn.....	Rivers Meander and Herbert, from mouth to source.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF NOVA SCOTIA—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
<i>Hants County— Concluded.</i>			
Moshier, Noah	Warden	Mosherville	Kennetcook River, from mouth to head of tide.
O'Brien, Jas	do	Maitland	Walton and Kennetcook Rivers.
Smith, W. D.	Overseer	do	Shubenacadie River from Five Mile River to its mouth, and the south side of Cobequid Bay to Noël.
Snide, John	do	Shubenacadie.	Shubenacadie River from Shubenacadie to and including Five Mile River.
<i>Inverness County.</i>			
McLean, D. F.	do	Port Hood	Division No. 1.—The sea coast of the county of Inverness south of Mabou Harbour, including South-west Mabou and Little Mabou Rivers, Port Hood, Seaside, Judique, Little Judique, Long Point, Cregnish, Low Point, Port Hastings and Port Hawkesbury, and extending into the interior to the north-west arm of River Inhabitants; also all that portion of the inland waters of the county of Inverness, lying on the northern side of the county Victoria line, from James McKinnon's to Whycocomagh Bay, and from the western side of the road leading from Whycocomagh Bay through Glencoe and south-west ridge of Mabou to Mabou Bridge.
McEachern, Peter	do	Glendale	Division No. 2.—That portion of the county of Inverness lying on the southern side of the county Victoria line, from the head of Whycocomagh Bay (Port Hawkesbury and Port Hastings excepted), including River Inhabitants and its branches, River Denis and its branches, Malagawatch and West Bay.
McKeen, Lewis	do	Mabou	Division No. 3.—That portion of the county of Inverness lying on the northerly side of Mabou Harbour, including the main river of the same name north of Whycocomagh and all streams flowing into the northern side of Whycocomagh Bay; also the northern side of Mabou mouth, Coal Mines; Mabou Light Point, Port Ban, Broad Cove shore to Broad Cove Chapel on the sea coast and the waters of Lake Ainslie in the interior.
Coady, James	do	S. W. Margaree	Division No. 4.—That portion of the sea coast of the county of Inverness extending from Broad Cove Chapel, including Broad Cove Marsh, Chimney Corner, Margaree Island and Doucette's Cove to Delaney's Cove; also the waters of East Lake Ainslie, and the streams flowing into it, Loch Ban, S. W. Margaree River and its tributaries, and the main river of Margaree from the Forks to Margaree Harbour.
Ross, David	do	N. E. Margaree	Division No. 5.—That portion of the sea coast of the county of Inverness extending from Delaney's Cove northward, including Big Pond, Cheticamp Point, Eastern Harbour, Little River, Cape Rouge and Pleasant Bay to Meat Cove; also that portion of the north-east Margaree River from Margaree Forks to the source of Big Intervale, and all other streams to the county Victoria line.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—Continued.

PROVINCE OF NOVA SCOTIA—Continued.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
<i>King's County.</i>			
Bishop, C. E.	Warden	Horton	Gaspereaux River.
Brown, Philip	do	Blomidon	Blomidon.
Miller, Jas. S.	Overseer	Canning	King's County.
Murphy, L. A.	Warden	Gaspereaux	Gaspereaux River.
McIntyre, W.	do	Aylesford	Annapolis River.
Reid, R. F.	Overseer	Wolfville	King's County.
Thorpe, J. W.	Warden	Hall's Harbour	Hill's Point to Cape Split.
<i>Lunenburg County.</i>			
Boylan, Edward	do	New Ross	Upper Gold River.
Burns, Amon	do	Upper La Have	From Cooks to source of La Have River.
Cooney, Wilbur	do	Chester	East Branch, Middle River.
Croft, Wm.	do	Chester Basin	East Gold River, from Bongard's Point to Gold River Branch, thence to Clarke's, Clinton's and Henry's Lakes.
Demon, David	do	Lower Gold River	Lower Gold River.
Evans, David	Overseer	Chester	Lunenburg County, East Division, Middle Gold, Martin's and Mushamush Rivers.
Godard, C. E.	do	Bridgewater	La Have River.
Keating, Michael	Warden	East River	East River.
Keddy, J. H.	do	New Ross	Larder's River.
Mossman, Josiah	do	Bridgewater	From Henry Kock's to Knock's.
Meisner, Jacob	do	Chester	East River.
Schneisser, N.	do	East LaHaveFerry	La Have River, from mouth to Wilkie's Cove.
Solomon, W. M.	Overseer	Lunenburg	Western Division, Lunenburg County.
<i>Pictou County.</i>			
McPhie, Allan	do	Avondale	Eastern division, comprising the coast waters from Pictou Harbour to Antigonish County line, including French River, Barney's River, Bailey's Brook and streams tributary thereto.
McQueen, J. D.	do	Little Harbour	Southern Division, comprising Sutherland's River, Moose River, Garden of Eden Lake, East River, St. Mary's and stream tributary thereto.
Pritchard, A. O.	do	New Glasgow	Central Division, comprising Pictou Harbour, Pictou Island, East, West and Middle Rivers of Pictou.
Sutherland, Robert	do	River John	Western Division, comprising the coast waters from Colchester County line to Cole's Reef at Pictou Harbour, and all waters flowing into these waters, viz.: River John and tributaries Toney River, Big Cariboo and Little Cariboo Rivers.
<i>Queen's County.</i>			
Freeman, J. N.	do	Liverpool	Queen's County.
<i>Richmond County.</i>			
Lenoir, Alfred	do	Arichat	Division No. 1.—The sea coast and inland waters of Isle Madame, including the southerly half of the waters of Lennox Passage.
Cameron, Duncan	do	St. Peter's	Division No. 2.—That portion of the inland waters of the county of Richmond lying west of St. Peter's Canal, including the northerly half of the waters of Lennox Passage.
Murchison, John	do	Grand River	Division No. 3.—That portion of the sea coast, lakes and inland waters lying east of St. Peter's canals.

SCHEDULE of Fishery Officers, &c.—Continued.

PROVINCE OF NOVA SCOTIA—Concluded.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
		<i>Shelburne County.</i>	
McGill, Wm. John	Overseer	Shelburne	Shelburne County. From and including Clyde River to Yarmouth county line.
Goudey, E. S.	do	Barrington	
		<i>Victoria County.</i>	
.....	do	.....	Division No. 1.—The sea coast and inland waters of the county of Victoria, lying north of a line drawn from Middle Head, which divides the north and south bays of Ingonish to the county line of Inverness.
Campbell, Chas. L.	do	New Campbellton	Division No. 2.—The sea coast and inland waters of the county of Victoria from Cape Breton County line, on Boularderie Island, to Lake O'Law Post Office, near Inverness County line, thence to the boundary of Division No. 1, at Middle Head, Ingonish, including the waters of Clyburn Brook.
McQuarrie, Donald	do	Middle River	Division No. 3.—That portion of the county including Bras d'Or Lake, with the inland waters and estuaries, from a line drawn from the angle in the county line of Cape Breton at Boularderie Island, to Lake O'Law Post Office.
		<i>Yarmouth County.</i>	
Hatfield, J. A.	do	Tusket	Yarmouth County.

PROVINCE OF NEW BRUNSWICK.

Pratt, J. H.	Inspectors of Fisheries and officer in command of Cruiser "Curlew,"	St. Andrew's	District No. 1, comprising the county of Charlotte, including the Islands of Campobello and Grand Manan, and Passamaquoddy Bay.
Chapman, Robert A.	Inspector of Fisheries.	Moncton	District No. 2, comprising the counties of Restigouche, Gloucester, Northumberland, Kent and Westmoreland.
Miles, H. S.	do	Oromocto	District No. 3, comprising the counties of Albert, St. John, King's, Queen's, Sunbury, York, Carleton and Victoria.
Harding, J. H.	Agent of M. and F., and Fishery Officer.	St. John	Having jurisdiction over the whole of New Brunswick.
		<i>Albert County.</i>	
Stewart, Suthd	Overseer	Alma	County of Albert.
Taylor, Wallace	Ward	Coverdale	Petitcodiac River.
Wilbur, Kinnear T	do	Midway, Harvey.	Germantown Lake and Shepody River.
		<i>Charlotte County.</i>	
Brown, Barth	Overseer	Campobello	Bay of Fundy around Campobello and West Isles.
Campbell, D. F.	do	St. Andrew's	County of Charlotte from Oak Bay to Point Lepreau.
Mathewson, John	do	St. George	Inland waters of the parish of St. George, Pennfield and Lepreau.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF NEW BRUNSWICK—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
<i>Charlotte County—</i>			
<i>Concluded.</i>			
Martin, Frederic	Overseer	Grand Manan.....	Bay of Fundy, around Grand Manan Island.
McLaughlin, W. B.....	do	do	Spawning grounds, near southern head of Grand Manan Island.
<i>Gloucester County.</i>			
Aché, Adolphe.....	do	Shippegan.....	Shippegan.
Albert, Xavier D.....	do	Caraquet.....	Caraquet Herring Banks.
Brown, Gavin	Warden.....	Tête à Gauche River.	From Brown's Mill down to mouth.
Calnan, John, jun.	do	Kinsale.....	That part of River Tête à Gauche, from Brown's Mills to source.
Dempsey, Miles.....	do	Salmon Beach	Salmon Beach, from Bass River to Grindstone Point.
Gibbs, Valentine.....	do	Pokemouche	Pokemouche.
Hache, J. L.....	Overseer.....	Caraquet.....	Caraquet and Shippegan oyster beds, with St. Cimon's Inlet and River.
Hickson, James.....	do	Bathurst	River Nepissiguit and tributaries, with sea coast and streams, from Belledune River to Grindstone Point.
Landry, Arcade.....	do	Shippegan.....	District of Shippegan.
Marks, Wm.....	do	Miscou.....	Jurisdiction in whole county of Gloucester.
Robichaud, Olivier.....	Warden.....	Ferguson's Point..	Coast from Northumberland County line to Green Point, with Big and Little Tracadie Rivers.
Sweeney, Wm	Overseer.....	Grande Anse.....	Bay des Chaleurs, from Mill Stream to Belledune.
Thériault, James D.....	do	Green Point	Bay Chaleurs, from Grande Anse to Point Mizzenette.
Walsh, William.....	do	Pokemouche.....	District of Pokemouche.
Whelton, Michael.....	Warden.....	Pokeshaw.....	Pokeshaw.
<i>Kent County.</i>			
Boudreau, Ed.....	Guardian...	Little Buctouche River.	Little Buctouche River.
.....	.....	.....	Coast line and inland waters of the parish of Dundas.
.....	.....	.....	Coast line and inland waters of the parishes of Wellington and St. Mary's.
Hannah, William J.....	Overseer.....	Richibucto.....	The whole of the county of Kent.
Leblanc, A. T	do	Legerville	Inland waters of the parishes of Harcourt and Huskisson.
Richard, Pierre L.....	do	St. Louis.....	Coast line and inland waters of the parishes of St. Louis, Carleton and Acadieville.
<i>King's County.</i>			
Belyea, J. A.....	do	Westfield.....	St. John River and Belle Isle Bay and streams running thereinto.
Fenwick, Edwin.....	Warden.....	Studholm.....	Millstream.
Gray, Justus H.....	Overseer.....	Springfield.....	The waters in the parish of Springfield.
Heine, W. H.....	do	Norton Station.....	The Kennebecassis River, from Apohaqui to Hampton.
Nowlan, Jas. D.....	do	Smith's Creek.....	From mouth of Smith's Creek and the waters in the parishes of Havelock, Waterford, Sussex and Hammond.
Pearson, I. R.....	Warden...	English Settlement	Washademoak Lake and its tributaries in King's and Queen's Counties.

SCHEDULE of Fishery Officers, &c.—*Continued.*PROVINCE OF NEW BRUNSWICK—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
		<i>Northumberland County.</i>	
	Overseer		District No. 1—The north coast of Northumberland County extending from Gloucester County line up the Miramichi Bay and River to Oak Point as far as midchannel, including all bays, gullies, islands, rivers and streams entering thereinto.
Williston, J. G.	do	Bay du Vin	District No. 2—The south coast of Northumberland County, extending from Kent County line up the Miramichi Bay and River to Point au Carr as far as midchannel, including all bays, gullies, islands, rivers and streams entering thereinto.
Abbott, Lemuel	do	Chatham	District No. 3—Both shores of the main Miramichi River extending from a line drawn from Point aux Carr on the south side to Oak Point on the north side, to its junction with the north-west and south-west Miramichi Rivers, together with all islands therein and all rivers and streams emptying thereinto.
Hogan, Patrick	do	Newcastle	District No. 4—The north-west branch of the Miramichi River, with all its tributaries, extending from its junction with the main river to its sources.
Parker, Thomas	do	Derby	District No. 5—The south-west branch of the Miramichi River, with all its tributaries, extending from its junction with the main river to its sources.
		<i>Queen's County.</i>	
Case, Mayes	do	Wickham	The whole county of Queen's.
		<i>Restigouche County</i>	
	do	River Charlo	From Belledune to Dalhousie.
Verge, J. A.	do	Cross Point	From Dalhousie to tide head.
		<i>Sunbury County.</i>	
Griffith, Chas.	Warden	Sheffield	St. John River, Indiantown to county line of York.
Hoben, G. W.	Overseer	Burton	do do do
		<i>St. John County.</i>	
Cochrane, John	do	I.C.R. Station, St. John.	City of St. John and vicinity with special reference to the detection and seizures of illegally caught fish shipped by railway.
O'Brien, John	do	Carleton, St. John.	St. John County.
Rourke, E. V.	do	St. Martin's	Eastern part of St. John County, from Quaco Head to Goose River.
		<i>Victoria County.</i>	
Ryan, Thos. D.	do	Grand Falls	County of Victoria.
		<i>Westmoreland County.</i>	
Cormier, D. T.	do	Pré d'en haut	Dorchester Bay.
Goodwin, Robt.	do	Bay Verte	The parishes of Sackville and Westmoreland.
		<i>York County.</i>	
Orr, Robt.	do	Fredericton	County of York.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF PRINCE EDWARD ISLAND.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Lord, A.	Agent of Marine & Fisheries & Fishery Officer.	Charlottetown ...	Having jurisdiction over the whole of P. E. I.
Hackett, Edward..	Inspector of Fisheries.	do	Prince Edward Island.
McBride, Patrick.....	Overseer....	Central Bedeque..	Lot 26.—The county of Prince.
McCormack, Michael....	do	Souris	Having jurisdiction over the whole of P. E. I.

PROVINCE OF MANITOBA.

Tupper, R. Latouche...	Inspector...	Selkirk	Province of Manitoba.
Sutherland, M.	Asst. Insp...	Fernton	do
			1. Souris District—Bounded on the north by the 50th parallel of latitude from the western boundary of the province easterly to the 99th meridian line; on the east by the 99th meridian line from the 50th parallel southerly to the international boundary; on the south by the international boundary line to the western boundary of the province, and on the west by the western boundary of the province from the international boundary northerly to the 50th parallel north latitude.
			2. Portage la Prairie District—Bounded on the north by the 50th parallel of latitude from the 99th meridian line, easterly to the first principal meridian line; on the east by the first principal meridian line from the 50th parallel southerly to the international boundary line from the first principal meridian line, westerly to the 99th meridian line; and on the west by the 99th meridian line from the international boundary line to the 50th parallel of latitude.
			3. Provencher District—Bounded on the north by the 50th parallel of latitude from the first principal meridian to the easterly boundary of the province; on the east by the eastern boundary of the province from the 50th parallel of latitude, southerly to the international boundary; on the south by the international boundary line from the eastern boundary of the province, westerly to the first principal meridian; and on the west by the first principal meridian from the international boundary, northerly to the 50th parallel of latitude.
			4. First Lake Winnipeg District—Bounded on the north by the 51st parallel of latitude from the first principal meridian, easterly to the eastern boundary of the province; on the east by the eastern boundary of the province from the 51st parallel of latitude, southerly to the 50th parallel of latitude on the south by the 50th parallel of latitude from the eastern boundary of the province, westerly to the first principal meridian; and on the west by the first principal meridian from the 50th parallel of latitude, northerly to the 51st parallel.

SCHEDULE of Fishery Officers, &c.—*Continued.*PROVINCE OF MANITOBA—*Continued.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
			5. Lower Lake Manitoba District—Bounded on the north by the 51st parallel of latitude from the 99th meridian, easterly to the first principal meridian; on the east by the first principal meridian line from the 51st parallel of latitude, southerly to the 50th parallel; on the south by the 50th parallel of latitude from the first principal meridian, westerly to the 99th meridian line; and on the west by the 99th meridian line from the 50th parallel of latitude, northerly to the 51st parallel.
Muckle, J. A.	Overseer....	Birtle	6. Little Saskatchewan District—Bounded on the north by the 51st parallel of latitude from the western boundary of the province, easterly to the 99th meridian line; on the east by the 99th meridian line from the 51st parallel of latitude, southerly to the 50th parallel; on the south by the 50th parallel of latitude from the 99th meridian line, westerly to the western boundary; and on the west by the western boundary of the province from the 50th parallel of latitude, northerly to the 51st parallel.
			7. Lake Dauphin District—Bounded on the north by the 52nd parallel of latitude from the western boundary of the province, easterly to the 99th meridian line; on the east by the 99th meridian line from the 52nd parallel of latitude, southerly to the 51st parallel; on the south by the 51st parallel of latitude from the 99th meridian line, westerly to the western boundary of the province; and on the west by the western boundary of the province from the 51st parallel of latitude, northerly to the 52nd parallel.
Martineau, H.	Overseer....	Manitoba House..	8. Upper Lake Manitoba District—Bounded on the north by the 52nd parallel of latitude from the 99th meridian line, easterly to the first principal meridian; on the east by the first principal meridian line from the 52nd parallel of latitude, southerly to the 51st parallel; on the south by the 51st parallel of latitude from the first principal meridian to the 99th meridian line; and on the north by the 52nd parallel of latitude from the 99th meridian line, easterly to the first principal meridian.
			9. Second Lake Winnipeg District—Bounded on the north by the 52nd parallel of latitude from the first principal meridian, easterly to the eastern boundary of the province; on the east by the eastern boundary of the province from the 52nd parallel of latitude, southerly to the 51st parallel; on the south by the 51st parallel of latitude from the eastern boundary of the province westerly to the first principal meridian, and on the west by the first principal meridian from the 51st parallel of latitude southerly to the 52nd parallel.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—*Continued.*

PROVINCE OF MANITOBA—*Concluded.*

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
			10. Third Lake Winnipeg District—Bounded on the north by the northern boundary of the province from the 99th meridian line, easterly to the eastern boundary of the province; on the east by the eastern boundary of the province to the northern boundary of Manitoba, southerly to the 52nd parallel of latitude; on the south by the 52nd parallel of latitude from the eastern boundary of the province, westerly to the 99th meridian line, and on the west by the 99th meridian line from the 52nd parallel of latitude, northerly to the northern boundary of the province.
			11. Lake Winnipegosis District—Bounded on the north by the northern boundary of the province from the westerly boundary thereof easterly to the 99th meridian line; on the east by the 99th meridian line from the northern boundary of the province southerly to the 52nd parallel of latitude; on the south by the 52nd parallel of latitude from the 99th meridian line, westerly to the western boundary of the province from the 52nd parallel of latitude, northerly to the northern boundary of Manitoba.
			12. Grand Rapids District—Bounded on the north by the 54th parallel of latitude from a line in continuation of the western boundary of Manitoba, easterly to the 99th meridian line, on the east of the 99th meridian line from the 54th parallel of latitude, southerly to the north boundary of Manitoba; on the south by the northern boundary of the province from the 99th meridian line, westerly to the western boundary of Manitoba, and on the west by a line in continuation of the western boundary of the province, northerly to the 54th parallel of latitude.
			13. Fourth Lake Winnipeg District—Bounded on the north by the 54th parallel of latitude from the 99th meridian line, easterly to the 95th meridian line; on the east by the 95th meridian line from the 54th parallel of latitude, southerly to the northern boundary of Manitoba; on the south by the northern boundary of Manitoba from the 95th meridian line, westerly to the 99th meridian line; on the west by the 99th meridian line from the northern boundary of Manitoba northerly to the 54th parallel of latitude.
Gunne, Robt.....	Overseer.....	Winnipeg.....	} Each within the limits of his district as a forest ranger. Within his district as Crown timber agent.
Toole, Wm.....	do	do	
Fee, Michael.....	do	do	
Stevenson, E. F.....	do	do	

SCHEDULE of Fishery Officers, &c.—Continued.

N. W. TERRITORIES.

Name.	Rank.	P. O. Address.	Extent of Jurisdiction.
Gilchrist, F. C.	Inspector	Fort Qu'Appelle ..	The North-west Territories.
Foster, John.	Overseer.	Silton ..	Long Lake, N.W.T.
Lucas, S. B.	do	Holbrooke ..	District of Peace Hills, Alberta.
McKenzie, R. S.	do	Stobart.	do Prince Albert, Saskatchewan.
Johnston, A. E.	do	Edmonton ..	} Fishery divisions comprise the limits of each officer's district as a forest ranger.
Thompson, J. R.	do	Calgary.	
Cook, R. S.	do	Prince Albert.	} Fishery divisions comprise the limits of each officer's district as a homestead inspector in Manitoba and the North-west Territories.
Aikman, T. H.	do	} Care of the Commissioner of Dominion Lands, Winnipeg.	
Rogers, John.	do		
Park, R. S.	do		
Arsenault, J. J.	do		
Allison, John.	do		
Allison, W. H.	do		
De Balinhard, W. C.	do		

PROVINCE OF BRITISH COLUMBIA.

McNab, John.	Inspector	New Westminster.	Province of British Columbia.
McKay, J. W.	Overseer.	Kamloops ..	District of Yale.
Meason, W. C.	do	William's Lake...	The limit of his district as Indian Agent.
Phillips, Michael.	do	Kootenay.	do do do
Higginson, T. S.	do	New Westminster.	do do Crown timber agent.
Lomas, Wm. H.	do	Cowichan.	Cowichan District, Indian agency.
Todd, Chas.	do	Port Simpson.	District of Metlakelta Indians, North-west coast of British Columbia.
Ellison, Price.	do	Vernon.	Okanagan Lake and River, District of Yale, B.C.

All captains of the Fisheries Protection Service are also fishery officers, with power of a justice of the peace for all purposes of the Fisheries Act. For the year 1893 they are as follows:—

- Capt. O. G. V. Spain, of the ss. "Acadie."
- Capt. S. Bélanger, of the ss. "La Canadienne."
- Capt. A. Finlayson, of the ss. "Stanley."
- *Capt. J. H. Pratt, of the ss. "Curlew."
- Capt. Geo. M. May, of the ss. "Constance."
- Capt. C. T. Knowlton, of the schr. "Vigilant."
- Capt. W. H. Kent, of the schr. "Kingfisher."

Besides the above named the following were also appointed fishery officers:—

- Capt. Caleb A. Atkins, of ss. "Newfield," for province of Nova Scotia.
- Capt. Chas. T. Daykin, of ss. "Lansdowne," for province of New Brunswick.
- Capt. Alex. M. MacGregor, of ss. "Bayfield," for province of Ontario.
- Capt. Ed. Dunn, of ss. "Petrel," for province of Ontario.

*Capt. Pratt is also inspector of fisheries for the county of Charlotte, N.B.

Fisheries Report.

SCHEDULE of Fishery Officers, &c.—*Concluded.*

FISH CULTURE.

Name.	Rank.	P. O. Address.
Samuel Wilnot.	Superintendent of Fish Culture for the Dominion	Ottawa.
A. B. Wilnot.	Officer in charge of Government Fish Hatchery	Newcastle, Ont.
William Parker.	do do	Sandwich, Ont.
John Walker.	do do	Ottawa.
L. N. Catellier.	do do	Tadousac, Que.
Henry Davis.	do do	Gaspé Basin, Que.
Alex. Mowat.	do do	Campbellton, N.B.
A. H. Moore	do do	Magog, Que.
A. Ogden.	do do	Bedford Basin, N.S.
W. J. Dunlop	Asst. officer do	Sydney, C.B., N.S.
Isaac Sheasgreen	Officer do	South Esk, N.B.
Chas. McCluskey	do do	Grand Falls, N.B.
John McNab	do do	New Westminster, B.C.
A. Ogden.	do Government Lobster Hatchery.	Bay View, Pictou, N.S.

RECAPITULATION.

Provinces.	No. of officers.
Ontario.	102
Quebec.	70
Nova Scotia	80
New Brunswick.	55
Prince Edward Island	4
Manitoba and North-west Territories	21
British Columbia	8
Fish Culture	13
Officers and crews of seven fisheries protection vessels	175
Total	528

In addition to the above regular staff, 175 temporary local guardians were employed during the year as occasion required.

APPENDIX No. 2.
FISHING BOUNTIES.

GENERAL STATEMENT of Fishing Bounty Claims received for the Year 1892.

Province.	County.	No. of Claims received.	No. of Claims rejected.	No. of Claims held in abeyance.	No. of Claims paid.
Nova Scotia	Annapolis	152	5		*148
	Antigonish	139	2		137
	Cape Breton	429	1		428
	Digby	336	9		327
	Guysboro'	1,211	17		1,194
	Halifax	1,506	14	2	1,490
	Inverness	541	1		540
	King's	45	2		43
	Lunenburg	1,049	2		1,047
	Pictou	64			64
	Queen's	294			294
	Richmond	998	13		985
	Shelburne	789	11		778
	Victoria	527	6		521
Yarmouth	192	2		190	
	Totals	8,272	85	2	8,186
New Brunswick	Charlotte	455	8		447
	Gloucester	438	37	1	400
	Kent	118	1		117
	Northumberland	17			17
	Restigouche	8	8		
	St. John	22	6		16
	Westmoreland	9	5		4
	Totals	1,067	65	1	1,001
Prince Edward Island	King's	562	6	3	*555
	Prince	362	6		356
	Queen's	141		1	140
	Totals	1,065	12	4	1,051
Quebec	Bonaventure	1,220	137		1,083
	Gaspé	2,513	56		2,457
	Rimouski	55			55
	Saguenay	637	28		609
	Totals	4,425	221		4,204

RECAPITULATION.

Nova Scotia	8,272	85	2	8,186
New Brunswick	1,067	65	1	1,001
Prince Edward Island	1,065	12	4	1,051
Quebec	4,425	221		4,204
Grand Totals	14,829	383	7	14,442

* NOTE.—The number of bounty claims paid for 1892 includes several applications for the years 1889 and 1890 held in abeyance for inquiry. This will explain the difference between claims paid and claims received after deducting those rejected and held in abeyance.

Fisheries Report.

GENERAL STATEMENT of Payments made on account of Fishing Bounty Claims to Boats and Vessels, for the year 1892.

Province.	County.	Amount paid.	Total.
		\$ cts.	\$ cts.
Nova Scotia	Annapolis	1,537 11	
	Antigonish	813 75	
	Cape Breton	3,130 51	
	Digby	6,002 12	
	Guysboro'	8,582 45	
	Halifax	13,723 71	
	Inverness	4,860 89	
	King's	462 20	
	Lunenburg	35,317 36	
	Pictou	327 00	
	Queen's	2,641 61	
	Richmond	10,964 97	
	Shelburne	10,311 46	
Victoria	3,134 00		
Yarmouth	7,604 25		
			109,413 39
New Brunswick	Charlotte	4,924 65	
	Gloucester	4,468 09	
	Kent	662 50	
	Northumberland	385 00	
	St. John	337 87	
	Westmoreland	92 50	
			10,870 61
Prince Edward Island...	King's	4,466 30	
	Prince	3,949 85	
	Queen's	1,366 64	
			9,782 79
Quebec	Bonaventure	6,474 00	
	Gaspé	17,055 25	
	Rimouski	286 00	
	Saguenay	5,879 10	
			29,694 35
			159,761 14
	Less—Refunds, N.S., \$3.00; N.B., \$6.00.....		9 00
	Grand total		159,752 14

DETAILED STATEMENT showing Fishing Bounties paid to Vessels in each County for the Year 1892.

Province.	County.	Number of Vessels.	Tonnage.	Average Tonnage.	No. of Men.	Amount paid.
						\$ cts.
Nova Scotia	Annapolis ..	10	286	29	61	776 11
	Antigonish ..	1	11	11	1	24 75
	Cape Breton ..	7	120	17	31	324 51
	Digby ..	53	1,516	29	385	4,214 12
	Guysboro' ..	16	485	30	80	1,396 45
	Halifax ..	79	2,215	28	466	6,107 71
	Inverness ..	8	258	32	50	737 89
	King's ..	4	88	22	10	220 20
	Lunenburg ..	154	10,410	67	1,887	31,260 36
	Queen's ..	8	360	45	73	1,041 61
	Richmond ..	67	2,088	31	460	6,033 97
	Shelburne ..	56	2,113	38	496	5,905 46
	Victoria ..	2	34	17	4	85 00
Yarmouth ..	42	2,295	54	607	6,709 25	
	Totals.....	507	22,279	44	4,611	64,837 39
New Brunswick	Charlotte..	53	911	17	160	2,519 65
	Gloucester..	41	528	13	129	1,513 09
	Kent ..	2	30	15	3	47 50
	Northumberland ..	4	96	24	24	288 00
	St. John ..	7	92	13	22	271 87
	Westmoreland ..	1	26	26	5	71 50
	Totals.....	108	1,683	16	343	4,711 61
Prince Edward Island...	King's ..	13	416	32	66	1,102 30
	Prince ..	12	462	38	59	1,276 85
	Queen's ..	5	105	21	14	250 64
	Totals.....	30	983	33	139	2,629 79
Quebec	Bonaventure ..	1	10	10	2	25 00
	Gaspé ..	4	125	31	28	363 25
	Saguenay ..	18	668	37	129	1,983 10
	Totals.....	23	803	35	159	2,371 35

RECAPITULATION.

Nova Scotia.....	507	22,279	44	4,611	64,837 39
New Brunswick.....	108	1,683	16	343	4,711 61
Prince Edward Island.....	30	983	33	139	2,629 79
Quebec.....	23	803	35	159	2,371 35
Grand totals	668	25,748	38	5,252	74,550 14

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to **Boats** for the Year 1892.

Province.	County.	Number of Boats.	Number of Men.	Amount paid.
				\$
Nova Scotia.....	Annapolis.....	138	209	761
	Antigonish.....	136	219	789
	Cape Breton.....	421	795	2,806
	Digby.....	274	505	1,788
	Guysboro'.....	1,178	2,004	7,186
	Halifax.....	1,411	2,069	7,616
	Inverness*.....	532	1,196	4,123
	King's.....	39	68	242
	Lunenburg.....	893	1,055	4,057
	Pictou.....	64	88	327
	Queen's.....	286	438	1,600
	Richmond.....	918	1,338	4,931
	Shelburne.....	722	1,229	4,406
	Victoria.....	519	845	3,049
	Yarmouth.....	148	249	895
	Totals.....	7,679	12,307	44,576
New Brunswick.....	Charlotte.....	394	673	2,405
	Gloucester†.....	359	871	2,955
	Kent.....	115	168	615
	Northumberland.....	13	28	97
	St. John.....	9	19	66
	Westmoreland.....	3	6	21
	Totals.....	893	1,765	6,159
Prince Edward Island...	King's.....	542	941	3,364
	Prince.....	344	779	2,673
	Queen's.....	135	327	1,116
	Totals.....	1,021	2,047	7,153
Quebec.....	Bonaventure.....	1,082	1,790	6,449
	Gaspé.....	2,453	4,726	16,692
	Rimouski.....	55	77	286
	Saguenay.....	591	1,100	3,896
	Totals.....	4,181	7,693	27,323

RECAPITULATION.

Nova Scotia.....	7,679	12,307	44,576
New Brunswick.....	893	1,765	6,159
Prince Edward Island.....	1,021	2,047	7,153
Quebec.....	4,181	7,693	27,323
Totals.....	13,774	23,812	85,211
Less—Refunds: *N.S., \$3; †N.B., \$6.....			9
Grand total.....	13,774	23,812	85,202

COMPARATIVE STATEMENT of Fishing Bounties paid, from 1882 to 1892 inclusive.

Number.	Province.	County.	1882.			1883.			1884.			Number.
			Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	
			\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
1	Nova Scotia	Annapolis.....	472 00	1,988 00	2,470 00	838 00	1,207 50	2,045 50	648 00	1,503 50	2,151 50	1
2		Antigonish.....	.....	840 00	840 00	.....	482 50	482 50	.....	799 50	799 50	2
3		Cape Breton.....	.....	294 00	5,167 00	5,461 00	436 00	2,853 50	3,289 50	383 00	3,909 00	3
4		Colchester.....	.....	.....	20 00	20 00	.....	.....	.....	64 00	64 00	4
5		Cumberland.....	.....	1,436 00	4,118 66	5,554 66	2,652 00	2,182 50	4,834 50	3,322 84	2,234 50	5
6		Digby.....	.....	2,390 73	7,913 75	10,294 48	2,914 00	4,645 00	7,559 00	3,371 90	6,485 50	6
7		Guysboro'.....	.....	3,599 50	11,118 31	14,717 81	6,020 00	6,080 50	12,100 50	5,834 00	7,898 00	7
8		Halifax.....	.....	950 00	5,432 00	6,382 00	572 00	3,422 50	3,994 50	1,208 00	4,522 00	8
9		Inverness.....	.....	46 00	125 00	171 00	146 00	157 50	303 50	196 00	70 50	9
10		King's.....	.....	15,161 03	3,112 00	18,273 03	17,658 00	1,850 00	19,508 00	19,648 24	3,162 00	10
11		Lunenburg.....	.....	202 00	95 00	297 00	202 00	120 00	322 00	177 76	107 50	11
12		Pictou.....	.....	1,638 00	1,917 00	3,555 00	1,826 00	810 00	2,636 00	2,408 00	886 50	12
13		Queen's.....	.....	3,853 15	7,998 50	11,851 65	3,558 00	4,225 50	7,783 50	2,408 58	6,325 00	13
14		Richmond.....	.....	7,294 00	4,382 00	11,626 00	8,744 00	2,326 50	11,070 50	8,928 27	2,781 50	14
15		Shelburne.....	.....	284 00	4,861 00	5,145 00	432 00	2,830 50	3,322 50	60 00	4,045 50	15
16		Victoria.....	.....	7,825 09	1,615 00	9,440 09	9,486 00	695 50	10,181 00	9,758 00	971 50	16
17		Yarmouth.....	.....	45,435 50	60,663 22	106,098 72	55,544 00	33,888 50	89,432 50	59,274 59	45,659 50	17
18		Totals.....
19	New Brunswick...	Charlotte.....	2,140 00	5,641 00	7,781 00	2,380 00	2,830 00	5,210 00	2,702 00	3,035 00	5,827 00	19
20		Gloucester.....	422 00	5,368 00	5,790 00	492 00	3,568 50	4,060 50	508 00	4,799 00	5,307 00	20
21		Kent.....	768 00	965 00	1,733 00	266 00	1,197 50	1,463 50	246 00	764 50	1,010 50	21
22		Northumberland.....	.....	45 00	45 00	45 00	68 00	120 50	120 50	66 00	68 00	22
23		Restigouche.....	.....	28 00	.....	28 00	52 00	52 00	52 00	.....	.....	23
24		St. John.....	.....	984 00	591 00	1,575 00	861 20	587 50	1,448 70	956 00	260 00	24
25		Westmoreland.....	.....	.....	45 00	45 00	.....	40 00	40 00	.....	81 50	25
26	Totals.....	4,342 00	12,655 00	16,997 00	4,119 20	8,276 00	12,395 20	4,568 00	9,008 00	13,576 00	26

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COMPARATIVE STATEMENT OF FISHING BOUNTIES PAID, FROM 1882 TO 1892, INCLUSIVE—Continued.

Number.	Province.	County.	1882.			1883.			1884.			Number.
			Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	
			Amount.	Amount.	\$ cts.	Amount.	Amount.	\$ cts.	Amount.	Amount.	\$ cts.	
27	P. E. Island	King's	252 00	5,024 00	5,276 00	293 14	2,790 50	3,083 64	475 44	3,028 00	3,503 44	27
28		Prince	316 00	6,709 00	7,025 00	418 00	3,429 50	3,847 50	520 00	3,642 00	4,162 00	28
29		Queen's	210 00	3,636 00	3,836 00	96 00	1,550 00	1,646 00	65 02	1,473 50	1,538 52	29
30		Totals	778 00	15,359 00	16,137 00	807 14	7,770 00	8,577 14	1,060 46	8,143 50	9,203 96	30
31	Quebec	Bonaventure		8,945 00	8,945 00		3,846 50	3,846 50		5,508 00	5,508 00	31
32		Gaspe	2,070 00	17,899 75	19,969 75	2,152 00	9,302 50	11,454 50	1,906 00	13,879 50	15,785 50	32
33		Rimouski										33
34		Saguenay	2,350 00	1,773 00	4,123 00	2,320 01	2,319 00	4,639 01	2,023 09	4,687 50	6,711 43	34
35		Temiscouata		15 00	15 00							35
36		Totals	4,420 00	28,632 75	33,052 75	4,472 01	15,468 00	19,940 01	3,923 93	24,075 00	28,004 93	36
RECAPITULATION.												
37	Nova Scotia		45,435 50	60,683 22	106,098 72	55,544 00	33,888 50	89,432 50	59,274 59	45,659 50	104,934 09	37
38	New Brunswick		4,342 00	12,655 00	16,997 00	4,119 20	8,276 00	12,395 20	4,568 00	9,008 00	13,576 00	38
39	P. E. Island		778 00	15,359 00	16,137 00	807 14	7,770 00	8,577 14	1,060 46	8,143 50	9,203 96	39
40	Quebec		4,420 00	28,632 75	33,052 75	4,472 01	15,468 00	19,940 01	3,923 93	24,075 00	28,004 93	40
41		Totals	54,975 50	117,309 97	172,285 47	64,942 35	65,402 50	130,344 85	68,832 98	86,886 00	155,718 98	41

COMPARATIVE STATEMENT of Fishing Bounties paid, from 1882 to 1892, inclusive—Continued.

Number.	Province.	County.	1885.			1886.			1887.			Number.
			Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	
			Amount.	Amount.	cts.	Amount.	Amount.	cts.	Amount.	Amount.	cts.	
1	Nova Scotia.	Annapolis.	480 08	1,180 00	1,610 08	431 60	1,063 50	1,495 10	305 27	1,162 00	1,467 27	1
2		Antigonish.	210 00	982 50	832 00	392 00	982 50	832 00	924 50	924 50	2	
3		Cape Breton.	74 00	4,012 50	4,222 50	74 00	3,765 00	4,157 00	374 14	3,970 00	3	
4		Calchester.			74 00			74 00	74 00	74 00	4	
5		Cumberland.									5	
6		Dugby.	3,086 02	1,993 00	5,029 02	2,131 79	1,924 50	4,056 29	2,671 34	1,582 50	4,253 84	6
7		Guysboro'.	3,312 53	7,129 70	10,442 03	2,936 90	7,521 00	10,457 90	2,210 58	7,963 50	10,174 08	7
8		Halifax.	5,984 77	8,398 00	14,382 77	4,947 02	8,200 50	13,147 52	5,097 61	8,333 50	13,431 11	8
9		Inverness.	844 00	4,913 50	5,797 50	1,294 12	5,265 00	6,559 12	1,562 88	5,991 00	6,573 88	9
10		King's.	54 00	299 50	353 50	96 00	297 50	393 50	218 00	242 00	460 00	10
11		Lunenburg.	17,315 34	2,947 00	20,262 34	16,755 64	3,122 00	19,877 64	16,154 33	3,751 50	19,905 83	11
12		Pictou.	154 00	132 00	286 00	156 00	94 50	250 50		130 00	130 00	12
13		Queen's.	1,854 00	1,190 50	3,044 50	1,814 60	957 00	2,771 60	1,650 00	1,212 50	2,862 50	13
14		Richmond.	3,164 49	7,046 50	10,210 49	2,650 00	6,941 00	9,591 00	2,762 86	7,704 00	10,466 86	14
15		Shelburne.	9,198 00	3,201 50	12,399 50	7,880 67	3,072 00	10,952 67	6,678 62	3,687 00	10,365 62	15
16		Victoria.	168 00	4,487 00	4,653 00	222 20	4,599 50	4,821 70	88 00	4,600 50	4,688 50	16
17		Yarmouth.	9,415 50	968 50	10,384 00	8,513 60	829 00	9,342 60	8,539 40	1,230 50	9,769 90	17
18		Totals.	55,252 73	48,767 00	104,019 73	50,295 54	48,494 00	98,789 54	48,407 03	51,215 00	99,622 03	18
19	New Brunswick.	Charlotte.	2,508 25	8,937 00	6,445 25	2,579 67	4,246 00	6,825 67	3,292 65	4,681 50	7,974 15	19
20		Gloucester.	452 00	5,876 00	6,328 00	516 00	6,462 00	6,978 00	618 75	7,136 00	7,754 75	20
21		Kent.	184 00	1,309 50	1,493 50	206 00	1,473 50	1,679 50	370 00	1,728 50	2,098 50	21
22		Northumberland.	180 00	80 50	260 50	592 00	80 50	672 50	445 00	229 00	674 00	22
23		Restigouche.	902 00	367 50	1,269 50	28 00	7 00	35 00				23
24		St. John.		111 50	111 50	1,054 40	424 00	1,478 40	786 25	291 00	1,077 25	24
25		Westmoreland.					225 50	225 50		121 00	121 00	25
26		Totals.	4,226 25	11,682 00	15,908 25	4,976 07	12,918 50	17,894 57	5,512 65	14,187 00	19,639 65	26

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COMPARATIVE STATEMENT of Fishing Bounties paid, from 1882 to 1892, inclusive—Continued.

Number.	Province.	County.	1885.				1886.				1887.					
			Vessels.		Boats.		Vessels.		Boats.		Vessels.		Boats.			
			Amount.	\$ cts.	Amount.	\$ cts.	Amount.	\$ cts.	Amount.	\$ cts.	Amount.	\$ cts.	Amount.	\$ cts.		
					Total.			Total.			Total.			Total.		Number.
27	P. E. Island	King's	626 15	4,090 50	4,716 65	770 44	4,149 50	4,919 94	1,225 78	4,896 00	5,621 78	27				
28	Prince	Prince	426 00	3,552 00	3,978 50	967 40	3,413 00	4,380 40	1,127 00	3,636 00	4,763 00	28				
29	Queen's	Queen's	76 00	1,433 50	1,509 50	271 53	1,364 00	1,635 53	734 73	1,409 00	2,143 73	28				
30	Totals	Totals	1,128 15	9,076 50	10,204 65	2,009 37	8,926 50	10,935 87	3,087 51	9,441 00	12,528 51	30				
31	Quebec	Bonaventure		8,005 00	8,005 00		9,294 00	9,294 00		8,862 00	8,862 00	31				
32		Gaspé	1,524 26	14,900 50	16,424 76	1,176 98	15,465 50	16,642 48	1,233 98	15,335 25	16,569 23	32				
33		Rimouski										33				
34		Saguenay	1,988 00	5,047 00	7,035 00	2,227 63	5,119 50	7,347 13	2,354 00	4,122 50	6,476 50	34				
35		Temiscouata										35				
36	Totals	Totals	3,512 26	27,952 50	31,464 76	3,404 61	29,879 00	33,283 61	3,587 98	28,319 75	31,907 73	36				
RECAPITULATION.																
37	Nova Scotia		55,252 73	48,767 00	104,019 73	50,295 54	48,494 00	98,789 54	48,407 03	51,215 00	99,622 03	37				
38	New Brunswick		4,226 25	11,682 00	15,908 25	4,976 07	12,918 50	17,894 57	5,512 65	14,187 00	10,699 65	38				
39	P. E. Island		1,128 15	9,076 50	10,204 65	2,009 37	8,926 50	10,935 87	3,087 51	9,441 00	12,528 51	39				
40	Quebec		3,512 26	27,952 50	31,464 76	3,404 61	29,879 00	33,283 61	3,587 98	28,319 75	31,907 73	40				
41	Totals	Totals	64,119 39	97,478 00	161,597 39	60,685 59	100,218 00	160,903 59	60,595 17	103,162 75	163,757 92	41				
			Less Refund		58 00											
					161,539 39											

COMPARATIVE STATEMENT of Fishing Bounties paid,

Number.	1888.			1889.			1890.		
	Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	Vessels.	Boats.	Total.
	Amount.	Amount.		Amount.	Amount.		Amount.	Amount.		Amount.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1	217 01	1,153 50	1,370 51	182 31	1,044 00	1,226 31	234 58	799 00	1,033 58
2		1,063 50	1,063 50		1,012 00	1,012 00	13 75	882 00	895 75
3	423 33	3,618 00	4,041 33	307 47	3,470 00	3,777 47	455 19	3,896 00	4,351 19
4	85 50		85 50						
5									
6	1,696 68	1,749 50	3,446 18	1,721 61	1,608 00	3,329 61	1,381 05	1,727 00	3,108 05
7	1,289 71	8,274 50	9,564 21	974 57	8,093 00	9,067 57	500 44	8,349 00	8,849 44
8	3,809 99	7,806 00	11,615 99	4,367 08	7,789 00	12,156 08	3,950 57	9,268 00	13,218 57
9	1,247 90	5,432 00	6,679 90	1,037 96	5,170 00	6,207 96	732 67	5,094 00	5,826 67
10	123 45	272 50	395 95	112 50	212 00	324 50	147 38	361 00	508 38
11	13,893 81	3,794 00	17,687 81	17,184 42	3,577 00	20,761 42	15,957 09	4,606 00	20,563 09
12		110 50	110 50	33 00	120 00	153 00		146 00	146 00
13	1,495 82	1,174 00	2,669 82	1,524 06	1,499 00	3,023 06	942 00	1,825 00	2,767 00
14	2,390 65	8,108 50	10,499 15	2,825 92	6,534 00	9,359 92	2,963 30	8,008 00	10,971 30
15	5,193 59	3,842 50	9,036 09	4,127 80	4,240 00	8,367 80	3,087 27	4,680 00	7,767 27
16	36 00	4,963 50	4,999 50	21 00	5,030 00	5,051 00		5,477 00	5,477 00
17	5,661 46	858 50	6,519 96	5,428 81	896 00	6,324 81	4,771 35	1,005 00	5,776 35
18	37,564 90	52,221 00	89,785 90	39,848 51	50,294 00	90,142 51	35,136 64	56,123 00	91,259 64
19	2,113 50	4,447 50	6,561 00	2,127 16	4,803 00	6,930 16	1,678 07	4,644 00	6,322 07
20	537 46	8,212 50	8,749 96	590 95	9,822 00	10,412 95	812 15	10,811 00	11,623 15
21	244 48	1,770 50	2,014 98	71 50	2,177 15	2,248 65	76 50	2,235 85	2,312 35
22	155 34	73 00	228 34	414 37	85 00	499 37	216 26	77 00	293 26
23	28 50		28 50	21 00	7 00	28 00			
24	487 64	312 00	799 64	487 66	377 00	864 66	274 50	249 00	523 50
25		72 50	72 50		43 00	43 00		37 00	37 00
26	3,566 92	14,888 00	18,454 92	3,712 64	17,314 15	21,026 79	3,057 48	18,053 85	21,111 33

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from 1882 to 1892, inclusive—*Continued.*

1891.			1892.			Grand Total.	Number.
Vessels.	Boats.	Total.	Vessels.	Boats.	Total.		
Amount.	Amount.		Amount.	Amount.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
498 24	1,073 00	1,571 24	776 11	761 00	1,537 11	17,978 20	1
11 00	908 00	919 00	24 75	789 00	813 75	9,565 00	2
184 35	3,539 00	3,723 35	324 51	2,806 00	3,130 51	44,419 99	3
.....	.....	.....	.....	.....	.....	371 50	4
.....	.....	.....	.....	.....	.....	27 50	5
1,820 89	2,113 00	3,933 89	4,214 12	1,788 00	6,002 12	49,105 50	6
756 35	8,714 00	9,470 35	1,396 45	7,186 00	8,582 45	104,318 91	7
3,262 51	10,444 00	13,706 51	6,107 71	7,616 00	13,723 71	145,932 57	8
498 90	5,355 00	5,853 90	737 89	4,123 00	4,860 89	64,566 32	9
151 50	467 00	618 50	220 20	242 00	462 20	4,143 53	10
14,664 68	4,793 00	19,457 68	31,260 36	4,057 00	35,317 36	234,424 44	11
.....	228 00	228 00	.....	327 00	327 00	2,535 26	12
770 46	1,978 00	2,748 46	1,041 61	1,600 00	2,641 61	31,973 45	13
3,165 17	6,999 00	10,164 17	6,033 97	4,931 00	10,964 97	111,454 09	14
2,965 44	5,023 00	7,988 44	5,905 46	4,406 00	10,311 46	111,595 12	15
67 13	6,398 00	6,465 13	85 00	3,049 00	3,134 00	51,862 83	16
4,366 80	1,169 00	5,535 80	6,709 25	895 00	7,604 25	91,608 26	17
33,183 42	59,201 00	92,384 42	64,837 39	44,576 00	109,413 39	1,075,882 47	18
1,540 52	4,130 00	5,670 52	2,519 65	2,405 00	4,924 65	70,471 47	19
820 84	7,634 00	8,454 84	1,513 09	2,955 00	4,468 09	79,927 24	20
117 10	2,044 00	2,161 10	47 50	615 00	662 50	18,878 08	21
346 50	99 00	445 50	288 00	97 00	385 00	3,757 97	22
.....	31 00	31 00	.....	.....	.....	202 50	23
108 00	316 00	424 00	271 87	66 00	337 87	11,014 52	24
... ..	49 00	49 00	71 50	21 00	92 50	918 50	25
2,932 96	14,303 00	17,235 96	4,711 61	6 15 00	10,870 61	185,170 28	26

COMPARATIVE STATEMENT of Fishing Bounties

Number.	1888.			1889.			1890.		
	Vessels.	Boats.	Total.	Vessels.	Boats.	Total.	Vessels.	Boats.	Total.
	Amount.	Amount.		Amount.	Amount.		Amount.	Amount.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
27	654 06	2,067 00	2,721 06	1,043 02	6,672 00	7,715 02	713 09	4,837 00	5,550 09
28	782 00	3,826 50	4,608 50	651 25	4,114 00	4,765 25	633 93	3,941 00	4,574 93
29	180 90	1,582 50	1,763 40	69 26	1,445 00	1,514 26	63 30	1,498 00	1,561 30
30	1,616 96	7,476 00	9,092 96	1,763 53	12,231 00	13,994 53	1,410 32	10,276 00	11,686 32
31	.....	9,891 50	9,891 50	.....	10,689 00	10,689 00	51 76	11,894 00	11,945 76
32	1,098 05	16,527 50	17,625 55	856 34	16,597 00	17,453 34	376 51	16,914 00	17,290 51
33	.....	27 50	27 50	.....	160 00	160 00	.....	145 00	145 00
34	1,573 20	3,741 00	5,314 20	1,600 87	3,459 50	5,060 37	1,287 45	3,542 00	4,829 45
35	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	2,671 25	30,187 50	32,858 75	2,457 21	30,905 50	33,362 71	1,715 72	32,495 00	34,210 72

RECAPITU

37	37,564 90	52,221 00	89,785 90	39,848 51	50,294 00	90,142 51	35,136 64	56,123 00	91,259 64
38	3,566 92	14,888 00	18,454 92	3,712 64	17,314 15	21,026 79	3,057 48	18,053 85	21,111 33
39	1,616 96	7,476 00	9,092 96	1,763 53	12,231 00	13,994 53	1,410 32	10,276 00	11,686 32
40	2,671 25	30,187 50	32,858 75	2,457 21	30,905 50	33,362 71	1,715 72	32,495 00	34,210 72
41	45,420 03	104,772 50	150,192 53	47,781 89	110,744 65	158,526 54	41,320 16	116,947 85	158,268 01
	Less Refund. . . .		7 00				Less Refund		27 00
			150,185 53						158,241 01

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paid, from 1882 to 1892, inclusive—*Concluded.*

1891.			1892.			Grand Total.	Number.
Vessels.	Boats.	Total.	Vessels.	Boats.	Total.		
Amount.	Amount.		Amount.	Amount.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
528 03	5,526 00	6,054 03	1,102 30	3,364 00	4,446 30	53,627 95	27
484 14	4,454 00	4,938 14	1,276 85	2,673 00	3,949 85	50,993 07	28
99 13	1,680 00	1,779 13	250 64	1,116 00	1,366 64	20,294 01	29
1,111 30	11,660 00	12,771 30	2,629 79	7,153 00	9,782 79	124,915 03	30
52 13	11,605 00	11,657 13	25 00	6,449 00	6,474 00	95,117 89	31
371 25	17,762 00	18,133 25	363 25	16,692 00	17,055 25	184,404 12	32
.....	399 00	399 00	.....	286 00	286 00	1,017 50	33
927 79	3,390 00	4,317 79	1,983 10	3,896 00	5,879 10	61,732 98	34
.....	.....	.....	.....	.....	.....	15 00	35
1,351 17	33,156 00	34,507 17	2,371 35	27,323 00	29,694 35	342,287 49	36

LATION.

33,183 42	59,201 00	92,384 42	64,837 39	44,576 00	109,413 39	1,075,882 47	37
2,932 96	14,303 00	17,235 96	4,711 61	6,159 00	10,870 61	185,170 28	38
1,111 30	11,660 00	12,771 30	2,629 79	7,153 00	9,782 79	124,915 03	39
1,351 17	33,156 00	34,507 17	2,371 35	27,323 00	29,694 35	342,287 49	40
38,578 85	118,320 00	156,898 85	74,550 14	85,211 00	159,761 14	1,728,255 27	41
Less Refund .....	.....	7 00	Less Refund .....	.....	9 00	108 00	.....
.....	.....	156,891 85	.....	.....	159,752 14	1,728,147 27	.....

COMPARATIVE STATEMENT by Provinces for the Years 1882 to 1892, inclusive, showing :—
(1) Total number of Fishing Bounty claims received and paid by the Department of Marine and Fisheries.

YEAR.	NOVA SCOTIA.		NEW BRUNSWICK.		P. E. ISLAND.		QUEBEC.		TOTAL.	
	Received.	Paid.	Received.	Paid.	Received.	Paid.	Received.	Paid.	Received.	Paid.
1882.....	6,730	6,613	1,257	1,142	1,169	1,100	3,162	3,117	12,318	11,972
1883.....	7,171	7,076	1,693	1,579	1,138	1,106	3,602	3,325	13,604	13,086
1884.....	7,007	6,930	1,252	1,224	923	885	3,470	3,429	12,652	12,468
1885.....	7,646	7,599	1,609	1,588	1,117	1,025	3,943	3,912	14,315	14,124
1886.....	7,639	7,702	1,767	1,763	1,131	1,080	4,275	4,355	14,812	14,900
1887.....	8,262	8,227	1,975	1,958	1,201	1,126	4,138	4,105	15,576	15,416
1888.....	8,481	8,429	2,065	2,026	1,153	834	4,328	4,310	16,027	15,599
1889.....	8,816	8,523	2,428	2,392	1,211	1,511	4,664	4,652	17,119	17,078
1890.....	9,337	9,429	2,522	2,469	1,352	1,237	4,860	4,804	18,071	17,959
1891.....	10,242	10,063	2,831	2,084	1,482	1,446	5,108	4,913	19,663	18,506
1892.....	8,272	8,186	1,067	1,001	1,065	1,051	4,425	4,204	14,829	14,442
Totals.....	89,603	88,777	20,466	19,226	12,942	12,421	45,975	45,126	168,986	165,550

Fisheries Report.

(2) NUMBER of vessels, tonnage and number of men entitled to bounty in each year.

YEAR.	NOVA SCOTIA.			NEW BRUNSWICK.			P. E. ISLAND.			QUEBEC.			TOTAL.		
	No. of Vessels.	Ton- nage.	No. of Men.	No. of Vessels.	Ton- nage.	No. of Men.	No. of Vessels.	Ton- nage.	No. of Men.	No. of Vessels.	Ton- nage.	No. of Men.	No. of Vessels.	Ton- nage.	No. of Men.
1882	588	22,841	5,343	120	2,171	531	15	389	74	63	2,210	538	786	27,611	6,486
1883	700	29,788	6,288	126	2,102	496	16	450	66	62	2,236	443	904	34,576	7,243
1884	700	29,828	6,327	139	2,289	560	16	582	92	56	1,965	382	911	34,664	7,361
1885	629	27,709	5,897	128	2,120	496	19	597	113	55	1,791	317	831	32,217	6,823
1886	562	25,375	5,022	145	2,628	520	32	1,071	215	52	1,730	320	791	30,804	6,077
1887	566	24,520	4,900	154	2,889	563	38	1,677	338	54	1,883	334	812	30,969	6,135
1888	589	26,008	5,450	150	2,545	544	37	1,245	249	51	1,842	388	827	31,640	6,631
1889	597	27,123	5,684	153	2,590	565	35	1,274	239	48	1,729	330	833	32,716	6,818
1890	540	23,955	4,985	133	2,129	447	32	1,002	203	34	1,182	220	739	28,268	5,805
1891	527	22,780	4,618	124	2,051	411	27	778	155	27	924	168	705	26,533	5,352
1892	507	22,279	4,611	108	1,683	343	30	983	139	23	803	159	668	25,748	5,252
Totals.	6,505	282,206	59,025	1,480	25,199	5,476	297	10,048	1,883	525	18,295	3,599	8,807	335,746	69,983

(3) NUMBER of Boats among which Bounty was distributed, and number of men engaged in boat fishing receiving Bounty.

YEAR.	NOVA SCOTIA.		NEW BRUNSWICK.		P. E. ISLAND.		QUEBEC.		TOTAL.	
	No. of Boats.	No. of Men.	No. of Boats.	No. of Men.	No. of Boats.	No. of Men.	No. of Boats.	No. of Men.	No. of Boats.	No. of Men.
1882.....	6,043	12,130	1,024	2,530	1,087	3,070	3,071	5,716	11,225	23,446
1883.	6,458	13,553	1,453	3,309	1,098	3,106	3,266	6,188	12,275	26,156
1884.....	6,257	12,669	1,086	2,505	869	2,346	3,344	6,416	11,556	23,936
1885.....	6,970	13,396	1,460	3,254	1,006	2,606	3,857	7,485	13,293	26,741
1886.....	7,140	13,351	1,618	3,567	1,048	2,547	4,303	7,981	14,109	27,446
1887.....	7,662	13,997	1,804	3,994	1,088	2,711	4,051	7,550	14,605	28,252
1888.....	7,840	14,115	1,876	4,148	797	2,141	4,259	7,852	14,772	28,256
1889.....	7,926	14,118	2,237	5,032	1,475	3,568	4,602	8,807	16,240	31,525
1890.....	8,886	15,738	2,324	5,242	1,192	3,024	4,766	9,241	17,168	33,245
1891.....	9,525	16,552	1,928	4,126	1,383	3,427	4,865	9,432	17,701	33,507
1892.....	7,679	12,307	893	1,765	1,021	2,047	4,181	7,693	13,774	23,812
Totals....	82,386	151,926	17,703	39,472	12,064	30,593	44,565	84,331	156,718	306,322

(4) TOTAL Number of men receiving Bounty in each year.

YEAR.	NOVA SCOTIA.	NEW BRUNSWICK	P. E. ISLAND.	QUEBEC.	TOTAL.
	No. of Men.	No. of Men.	No. of Men.	No. of Men.	
1882.	17,473	3,061	3,144	6,254	29,932
1883.	19,791	3,805	3,172	6,631	33,399
1884.....	18,996	3,065	2,438	6,798	31,297
1885.....	19,293	3,750	2,719	7,802	33,564
1886.....	18,373	4,087	2,762	8,301	33,523
1887.....	18,897	4,557	3,049	7,884	34,387
1888.....	19,565	4,692	2,390	8,240	34,887
1889.....	19,802	5,597	3,807	9,137	38,343
1890.....	20,673	5,689	3,227	9,461	39,050
1891.....	21,170	4,537	3,582	9,570	38,859
1892.....	16,918	2,108	2,186	7,852	29,064
Totals.....	210,951	44,948	32,476	87,930	376,305

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(5) TOTAL annual payments of Fishing Bounty.

YEAR.	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1882.....	106,098 72	16,997 00	16,137 00	33,052 75	172,285 47
1883.....	89,432 50	12,305 20	8,577 14	19,940 01	130,344 85
1884.....	104,934 09	13,576 00	9,203 96	28,004 93	155,718 98
1885.....	103,999 73	15,908 25	10,166 65	31,464 76	161,539 39
1886.....	98,789 54	17,894 57	10,935 87	33,283 61	160,903 59
1887.....	99,622 03	19,699 65	12,528 51	31,907 73	163,757 92
1888.....	89,778 90	18,454 92	9,092 96	32,858 75	150,185 53
1889.....	90,142 51	21,026 79	13,994 53	33,362 71	158,526 54
1890.....	91,235 64	21,108 33	11,686 32	34,210 72	158,241 01
1891.....	92,377 42	17,235 96	12,771 30	34,507 17	156,891 85
1892.....	109,410 39	10,864 61	9,782 79	29,694 35	159,752 14
Totals.....	1,075,821 47	185,161 28	124,877 03	342,287 49	1,728,147 27

DETAILED STATEMENT of Fishing Bounties paid to Vessels, for the year 1892.

PROVINCE OF NOVA SCOTIA.

ANNAPOLIS COUNTY.

* This denotes that some of the crew did not comply with the regulations, or are debarred from participation in the bounty for being parties to fraud, and are not included in the column for crew.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
94,704	Charles Haskell....	Digby	67	David Hayden, M.O.	Thornville.....	*11	190 25
85,684	Constitution.....	do	28	Stephen Haynes, M.O.	Victoria Beach..	10	84 00
94,700	Franklin S. Schenck	do	44	Wm. McGrath, M.O.	Thornville.....	*11	126 50
80,001	Florence	St. John, N.B.	15	Edward Quinlan...	Victoria Vale....	* 3	36 00
83,461	Josie L. Day.....	Digby	16	Wm. Taylor, M.O.	Victoria Beach..	* 4	37 72
94,709	Jennie B. Thomas..	do	52	John Apt, M.O.	Thornville.....	*10	143 00
88,685	Ladora	St. John, N.B.	12	Stephen Baker.....	Margaretsville..	* 1	24 00
75,594	Lizzie G.....	Digby	16	Edward Kearns, M.O.	Victoria Beach..	* 2	48 00
83,253	Rescue	Annapolis	17	Josiah Burrell....	Clementsport....	* 7	51 00
94,756	Sarah E. Ellis.....	St. John, N.B.	12	Jno. Magranahan...	Margaretsville..	* 1	35 63

ANTIGONISH COUNTY.

96,787	Benecia Boy.....	Halifax.....	11	Lawrence Hylan....	Harb'rau Bouche	* 1	24 75
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CAPE BRETON COUNTY.

88,507	Belle of Rome....	Sydney	14	C. W. Mann.....	Gabarus.....	* 4	35 00
92,612	Betsy Jane.....	do	11	Sam'l Moore.....	Little Bras d'Or.	* 3	33 00
92,613	Bessie	do	20	Wm. J. Christie...	do	* 2	38 58
74,039	James Henry.....	do	18	Peter Devoe.....	do	* 7	54 00
75,577	Mary Ann Bell....	Lunenburg	33	J. Arseneault and V.	do	* 6	91 93
				Theriacault	do	* 6	91 93
92,600	Merit.....	Sydney	13	Alex. Leblanc.....	do	* 6	39 00
77,857	Sailors Bride....	do	11	Edw'd O'Bryan....	do	* 3	33 00

DIGBY COUNTY.

94,708	Ann Eliza.....	Digby	62	Jno. W. Hayden, M.O.	Digby.....	*11	166 08
94,696	Annie M. Sproule..	do	70	Jno. W. Sproule, M.O.	do	*12	195 00
83,258	Alfred.....	Annapolis	22	Edwin Hains, M.O.	Freeport.....	8	66 00
75,733	Alfred.....	Yarmouth	46	Burton Outhouse, M.O.	Tiverton.....	11	138 00
90,660	Alice May.....	do	18	Bradish Bailey, M.O.	Westport.....	7	54 00
88,267	Bessie May.....	St. John, N.B.	23	Geo. McDormand...	do	8	69 00
94,698	Carrie H.....	Digby	20	Augustus Haycock...	do	7	60 00
74,331	Condor.....	Yarmouth	11	Howard Titus.....	do	5	33 00
75,711	Dove	do	19	Jos. Ossinger, M.O.	Tiverton.....	* 6	49 88
94,707	Ernest F. Norwood.	Digby	79	Ansel Snow.....	Digby.....	*10	192 60
90,662	Edward A. Horton.	Digby	67	Joseph E. Snow, M.O.	Digby.....	*13	193 83
80,797	Ella H.....	do	14	Jno. Whiteneck....	Freeport.....	5	42 00
85,683	Edith L.....	do	16	R. W. Ford, M.O.	Westport.....	* 1	28 00
77,740	Elmer.....	do	15	James Gower.....	do	5	45 00
75,757	Etta	Yarmouth	17	J. W. C. Webber....	do	* 5	46 75
80,798	Freddie G.....	Digby	18	George Gower, M.O.	do	* 5	49 50
77,963	Freeman Colgate..	St. Andrews, N.B.	25	F. B. Lent, M.O.	do	10	75 00
74,339	Fairy Queen.....	Yarmouth	13	Wallace Coggins...	do	6	39 00
75,601	Flash.....	Digby	10	James A. Peters....	do	4	30 00
83,260	Gazelle.....	Annapolis	20	D. & O. Sproule...	Digby.....	* 6	55 72
94,706	George J. Tarr....	Digby	61	Jno. S. Hayden, M.O.	do	* 7	155 55

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to **Vessels**, &c.—Nova Scotia—*Con.*

DIGBY COUNTY—*Concluded.*

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
90,436	Genesta	Barrington	32	Geo. Denton, M.O.	Westport	10	96 00
80,800	Helen Maud	Digby	20	C. McDormand, M.O.	do	7	60 00
100,064	Isma	St. John, N.B.	31	Chas. Hicks & Sons	Westport	* 8	87 84
75,865	Ida Peters	do	32	Frank Blackford, M.O.	Sandy Cove	9	96 00
94,693	John H. Kennedy	Digby	54	William Snow	Digby	14	162 00
97,026	James Farnham	Yarmouth	31	Margaret Hersey, M.O.	Sandy Cove	* 5	69 75
80,604	Jennie C.	do	16	Chas Hicks & Sons	Westport	6	48 00
80,786	Lizzie P.	Digby	12	Nelson Thurber	Freeport	5	36 00
85,690	Lora T.	do	15	Wm. Titus, M.O.	do	7	45 00
85,685	L. M. Ellis	do	35	Holland Outhouse	Tiverton	10	105 00
80,881	Lena May	St. Andrews, N.B.	18	Amos H. Outhouse	do	6	54 00
94,701	Mary E. Whorf	Digby	77	Ho'ard Anderson, M.O.	Digby	*15	223 79
97,022	M. & L. Chase	do	46	Gilbert Ellis, M.O.	do	* 8	115 00
80,794	Minnie C.	do	18	Chas. H. Bailey, M.O.	Westport	6	54 00
85,682	Malapert	do	23	Ainsley Titus	do	8	69 00
94,825	On Time	Weymouth	19	Charles Leblanc, M.O.	Church Point	* 5	52 25
75,714	Prince	Yarmouth	10	Jeff. Stephens, M.O.	Freeport	5	30 00
90,873	Primrose	do	34	Geo. Coggins, M.O.	Westport	9	102 00
94,703	Phebe and Emma Small	Digby	70	Wm. H. Melancon, M.O.	Weymouth	* 7	150 96
75,864	Roving Lizzie	Weymouth	11	F. P. Small	East Ferry	* 2	23 10
75,547	River Rose	Barrington	13	Benj. Leblanc	Meteghan	* 1	22 75
83,132	Restless	Digby	25	Jackson Coggins	Westport	8	75 00
85,558	S. A. Crowell	Yarmouth	23	Wallace Gower	do	8	69 00
80,784	Silver Cloud	Digby	41	Handford Outhouse	Tiverton	11	123 00
75,726	Thrush	Yarmouth	13	Handley Outhouse	do	7	39 00
94,694	Utah & Eunice	Digby	33	Edwin Hains, M.O.	Freeport	8	99 00
37,282	Victoria	do	29	Hy. Outhouse, M.O.	Tiverton	10	87 00
75,595	West Wind	do	25	Syda & Cousins	Digby	* 8	67 50
88,264	Walter J. Clarke	St. John, N.B.	20	Wm. E. Gilliatt, M.O.	Sandy Cove	* 3	42 87
74,317	Willie	Yarmouth	21	C. Titus, M.O.	Westport	8	63 00
85,559	Willie F.	do	12	E. C. Thurber, M.O.	do	6	36 00
72,980	Wave	Digby	11	Alon. Morehouse, M.O.	Little River	* 3	26 40

GUYSBOROUGH COUNTY.

90,844	Armada	Guysboro'	25	Wm. O'Hara, M.O.	Canso	* 6	69 65
41,771	Atalia	do	34	T. H. Peeples, M.O.	Pirate Harbour	4	102 00
61,629	Carrie R.	do	17	Albert Pride, M.O.	Sonora	6	51 00
73,029	F. P. T.	Halifax	41	C. A. Murdoch	Sherbrooke	6	123 00
80,999	Guardian Angel	Guysboro'	20	Jos. Fougere	Larry's River	6	60 00
96,766	Golden Rule	Pt. Hawkesbury	42	Osborne Maguire	Pirate Harbour	5	126 00
85,724	Jumbo	Halifax	29	Henry Linden	Canso	* 5	79 75
74,355	La Mode	Pictou	26	John O'Neil, M.O.	Auld's Cove	4	78 00
74,115	Lord Eldon	Guysboro'	58	Jas. E. Hadley	Guysboro'	* 9	158 19
69,964	Lizzie A.	Pt. Hawkesbury	20	Jno. F. & A. H. Reeves	Pirate Harbour	4	60 00
69,141	Mary Elizabeth	Halifax	16	Hubert Boudrot	Port Felix	* 3	36 00
94,993	Onward	Charlottetown, P.E.I.	15	H. Horton & J. Ludington	New Harbour	* 2	33 76
80,970	Orion	Halifax	23	E. B. Pelrine	Larry's River	6	69 00
83,838	Ocean Bride	Pt. Hawkesbury	23	Jos. O'Neil, M.O.	Auld's Cove	* 4	62 10
75,892	Peter Mitchell	do	26	Wm. P. Power	Pirate Harbour	5	78 00
74,018	Sunbeam	Halifax	70	Lewis E. Hart	Guysboro'	5	210 00

DETAILED STATEMENT of Fishing Bounties paid to **Vessels**, &c.—Nova Scotia—*Con.*

HALIFAX COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
77,826	Abbie G.	Halifax.	31	Walter Glawson.	Pleasant Harbur	6	93 00
61,625	Alpha	do	18	Lindsay Hubley	French Village.	* 4	48 60
57,727	Agnes	do	21	John Hayes.	Herring Cove.	3	63 00
74,020	Addie	do	16	Dennis Fagan.	Ketch Harbour	3	48 00
75,848	Annie Gaetz.	do	36	Jno. G. Weston.	East Jeddore.	* 8	93 27
90,721	Brilliant Star	do	36	P. Hartlin, sr., & Jno. Hartlin	do	10	108 00
94,662	Bessie Florence	do	12	Chas. Twohig.	Pennant	* 2	30 00
73,969	Bertha E	do	21	Chas. Fader, sen.	St. Margaret's Bay	4	63 00
90,496	Black Prince.	do	18	J. W. Slaunwhite	Terence Bay	3	54 00
74,071	Condor	do	20	Geo. Julien <i>et al.</i>	W. Chezzetcook.	4	60 00
85,655	Daisy	do	16	J. A. Wambolt & H. Richardson	Indian Harbour.	5	48 00
85,663	Daring	do	18	Chas. Slaunwhite, sen.	Terence Bay	3	54 00
92,564	Evangeline	do	23	Daniel Baker.	Jeddore	6	69 00
96,785	Eva M. B.	do	45	F. Bonang <i>et al.</i>	W. Chezzetcook.	* 7	103 86
80,832	Ella May	Lunenburg	16	Amos Murphy	French Village.	* 2	40 00
90,481	Ella D	Halifax.	32	Arch. Darrah, sen.	Herring Cove	6	96 00
100,220	E. J. Smith.	do	11	Jno. J. Smith.	Sambro	3	33 00
88,357	Floresta	do	57	Chas. Nieforth <i>et al.</i>	Seaforth	15	171 00
88,227	Fleetwing	do	32	Thos. Lapierre <i>et al.</i>	W. Chezzetcook.	11	96 00
42,276	Foaming Billow.	do	66	M. B. Wrayton	Halifax.	6	198 00
86,644	Flora	do	42	Patrick Scallion.	Herring Cove	7	126 00
83,180	Friend	do	17	S. P. Slaunwhite	Terence Bay	3	51 00
55,836	Frank Newton.	Sydney	40	Theodore Conrod.	Sheet Harbour.	7	160 00
96,782	Glide	Halifax.	10	S. H. Garrison	Peggy's Cove.	2	30 00
94,963	Golden Seal.	Lunenburg	32	C. W. Hart.	Sambro	6	96 00
88,220	Grande	Halifax.	14	J. P. Slaunwhite	Terence Bay	3	42 00
94,979	Gleaner	do	57	Lawson B. Corkum <i>et al.</i>	Jeddore	*14	160 30
69,097	Highland Jane.	do	32	George Hartlin	East Jeddore	* 8	90 67
77,786	Hesperus.	do	17	Joseph Reyno, sen.	Herring Cove	3	51 00
83,134	Infant	Lunenburg	15	John Reyno	do	* 3	36 00
83,306	Iona.	Halifax.	26	A. Sullivan	do	5	78 00
100,212	James R.	do	51	C. & A. Mitchell.	East Jeddore	14	153 00
96,797	Laura Phebe	do	18	John Kent.	Musquodoboit Harbour	4	54 00
96,789	Lydia A. Mason	do	39	Peter Mason <i>et al.</i>	Tangier	8	117 00
94,665	Louis Luby	do	41	Wm. Lapierre <i>et al.</i>	W. Chezzetcook.	*13	118 61
75,605	Little Annie.	Digby.	27	Mathew Lynch	Ferguson's Cove.	6	81 00
94,661	L. C. Tough	Halifax	12	John E. Tough.	Pennant	3	36 00
96,790	Lillie C.	do	12	John Selig	East Dover	3	36 00
100,217	Lydia E.	do	10	E. C. Arnold.	East Jeddore	* 2	22 50
37,428	Medway Belle.	do	50	James Smith, sen.	E. Chezzetcook.	* 4	117 87
92,568	Mary Kate	do	13	Wm. Geddes.	Sober Island	* 3	34 13
85,385	Minnie M.	do	27	J. D. Gaetz and Wm. G. Nieforth	Seaforth	* 8	76 50
96,805	Maggie May.	do	62	Jeremiah Billis <i>et al.</i>	W. Chezzetcook.	15	186 00
92,330	Mary E. Leslie.	Liverpool	94	James Fraser	Halifax.	*21	234 55
85,664	Mary E.	Halifax	14	Andrew Twohig.	Pennant	3	42 00
80,841	Nina	do	13	Wm. E. Murphy	Owls Head	* 3	34 13
83,107	North Star.	do	26	Thos. & Simon Nieforth	Seaforth	8	78 00
94,667	Nettie M. G.	do	32	S. Hubly & C. Garrison	Indian Harbour.	9	96 00
85,665	Nellie D.	do	12	Daniel Smith.	Sambro.	4	36 00
64,018	Ocean Bride	do	23	Jos. H. Doyle.	West Jeddore	6	69 00
92,571	Primrose	do	14	Alex. Slaunwhite.	Terence Bay	3	42 00
96,806	Rising Sun	do	28	Geo. Julien.	W. Chezzetcook.	6	84 00
57,688	Riverdale	do	48	Geo. E. Boak	Halifax	(a)	72 00
53,551	Roving Bird	do	24	John Brown	Herring Cove	4	72 00
92,575	Robinetta	do	14	Michael Carroll	do	4	42 00
77,787	Rescue	do	20	Henry Fader.	East Dover	3	60 00
100,474	R. Beatrice	Lunenburg	19	James Morash, jun.	West Dover	* 2	42 76

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to **Vessels**, &c.—Nova Scotia—*Con.*

HALIFAX COUNTY—*Concluded.*

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
97,042	Sea Bird.....	Halifax.....	17	L. Murphy & S. Monk	East Ship Harb.	* 4	45 90
53,600	Starlight.....	do.....	29	T. Cooper & H. Hartlin	East Jeddore...	* 8	87 00
74,087	Sea Gem.....	do.....	30	James Jentex.....	do.....	* 5	73 13
94,675	Success.....	do.....	16	James Conrod.....	Spry Bay.....	* 2	33 60
37,579	Safe Guide.....	do.....	36	W. C. Henley.....	do.....	* 7	108 00
64,869	Sarah L. Oxner.....	do.....	34	Edward Hayes.....	Herring Cove.....	8	102 00
100,218	Sarah M. W.....	do.....	14	Hezekiah Wambolt.....	Indian Harbour.....	5	42 00
75,833	Twilight.....	do.....	14	Eli Baker.....	East Jeddore.....	6	42 00
77,836	T. W. Smith.....	do.....	35	Chas. Beaver.....	Spry Bay.....	7	105 00
90,490	T. W. Wolfe.....	do.....	31	Henry Lapiere <i>et al.</i>	W. Chezzetcook.....	9	93 00
90,482	Two Forty.....	do.....	18	Mrs. E. R. Forsyth.....	Halifax.....	* 3	47 25
100,154	Triton.....	Lunenburg.....	60	Jno. Wm. Wentzel.....	do.....	15	180 00
90,485	Violet West.....	Halifax.....	36	Thos. A. Gaetz <i>et al.</i>	Seaforth.....	11	108 00
88,609	Virgesco.....	Lunenburg.....	57	Geo. E. Boak.....	Halifax.....	(a)	85 50
96,781	Venture.....	Halifax.....	43	Edward Dempsey.....	Herring Cove.....	* 5	110 58
90,723	Winnie L.....	do.....	31	J. Gaetz <i>et al.</i>	Seaforth.....	10	93 00
88,228	Welcome.....	do.....	33	E. J. Nieforth <i>et al.</i>	do.....	10	99 00
83,042	Western Belle.....	do.....	23	Jno. Thomas.....	Herring Cove.....	5	69 00
92,578	Willetta.....	do.....	12	Joseph Gray.....	Sambro.....	3	36 00
61,904	Water Lily.....	do.....	14	Isaac Morash.....	West Dover.....	2	42 00
85,378	Zephyr.....	do.....	16	Robt. Slaunwhite.....	Terence Bay.....	3	48 00

(a) The crew not Canadians. † Owner not paid; debarred.

INVERNESS COUNTY.

90,739	Arizona.....	Pt. Hawkesbury	49	Wm. H. Paint.....	Pt. Hawkesbury	6	147 00
71,302	Alice.....	Charlottetown, P.E.I.	10	Lazare Lelievre.....	Eastern Harbour	5	30 00
96,765	Granada.....	Pt. Hawkesbury	58	Jas. Macdonald.....	West Bay.....	*11	166 75
38,468	Hector.....	Arichat.....	35	Jas. C. Skinner.....	Port Hastings.....	4	105 00
96,763	Lelia Linwood.....	Pt. Hawkesbury	67	Wm. H. Paint.....	Pt. Hawkesbury	* 9	175 89
69,125	May Flower.....	Halifax.....	11	Hyacinthe Chiasson.....	Eastern Harbour	6	33 00
96,761	Quick.....	Pt. Hawkesbury	13	Frederick Burns.....	do.....	4	39 00
83,094	Saint Mary.....	do.....	15	Patrick Gallant.....	East Margaree.....	* 5	41 25

KING'S COUNTY.

74,308	Bald Eagle.....	Yarmouth.....	14	Leonard Houghton.....	Hall's Harbour.....	3	42 00
92,604	Maudie.....	Sydney.....	26	John Cook, M.O.....	Harbourville.....	* 3	58 50
80,815	Rebecca W.....	Windsor.....	27	Fred. Parker.....	Hall's Harbour.....	* 2	56 70
57,109	Sea Bird.....	Yarmouth.....	21	L. R. Morris.....	Chipmans Brook	2	63 00

LUNENBURG COUNTY.

90,866	Alice.....	Lunenburg.....	12	Solmon Richard, M.O.	La Have.....	3	36 00
94,790	Abana.....	do.....	85	John M. Ritcey.....	Ritcey's Cove.....	13	240 00
100,489	Algoma.....	do.....	56	Jeffrey Publicover, M.O.	La Have.....	10	168 00
94,965	Alice B.....	do.....	66	Adnah Burns, M.O.....	do.....	12	198 00
100,160	Amelia Corkum.....	do.....	99	Charles Rafuse, M.O.....	West La Have.....	14	240 00
94,961	Altona.....	do.....	67	Emml. Zeller, M.O.....	Lunenburg.....	13	201 00
94,778	Argosy.....	do.....	83	Charles Smith, M.O.....	do.....	14	240 00
96,831	Argo.....	do.....	42	G. A. Parker, M.O.....	do.....	* 9	119 70
100,472	Arcana.....	do.....	86	Alex. Kniekle, M.O.....	do.....	14	240 00
94,873	Alaska.....	do.....	87	Benj. Anderson, M.O.....	do.....	*12	222 86
100,170	Atlanta.....	do.....	96	Freem'n Anderson, M.O.	do.....	14	240 00
100,163	Beauty.....	do.....	65	Wm. Sarty, M.O.....	La Have.....	10	195 00
94,651	Bessie A.....	do.....	99	Murd'n McGregor, M.O.	do.....	15	240 00
96,828	Bonanza.....	do.....	86	Charles Silver, M.O.....	Lunenburg.....	14	240 00
94,782	Bona Fides.....	do.....	90	J. Jos. Rudolph, M.O.	do.....	14	240 00
96,823	Burnham H.....	do.....	87	Benj. Morash, M.O.....	do.....	14	240 00
92,637	Bertie C. H.....	do.....	87	Thos. Hamm, M.O.....	do.....	14	240 00

DETAILED STATEMENT of Fishing Bounties paid to Vessels, &c.—Nova Scotia—Con.

LUNENBURG COUNTY—Continued.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
94,645	C. A. Chisholm	Lunenburg	81	Abraham Ernst, M.O.	Mahone Bay	12	240 00
94,658	C. A. Ernst	do	57	do	do	11	171 00
100,159	C. U. Mader	do	87	C. U. Mader, M.O.	do	12	240 00
85,642	Charlotte E. C.	do	80	do	do	12	240 00
94,643	Carrie M. C.	do	39	Joshua Coolen, M.O.	Fox Point	9	117 00
96,825	Cecelia W.	do	41	Robt. Walfield, M.O.	La Have	9	123 00
88,348	Cymbeline	do	96	Wm. Sarty, M.O.	do	13	240 00
90,856	Cleta	do	90	W. N. Reinhardt, M.O.	do	14	240 00
90,824	Ceto	do	95	Simon Parks, M.O.	do	14	210 00
100,482	Como	do	46	Joshua Oakes	do	10	138 00
97,081	Carrie	do	99	Albert McKean, M.O.	do	15	240 00
97,084	Calla Lily	do	62	Henry Hirtle, M.O.	do	11	186 00
94,646	Carrie C. W.	do	92	Martin Westaver, M.O.	Martin's Brook	14	240 00
100,483	Curfew	do	49	John D. Sperry, M.O.	Petit River	11	147 00
92,622	Coronet	do	115	A. H. Zwicker, M.O.	Lunenburg	14	240 00
90,869	Clara E. Mason	do	82	David Smith, M.O.	do	14	240 00
90,857	Capio	do	72	G. N. C. Hawkins, M.O.	do	12	216 00
96,835	Cora L.	do	99	Rufus Conrad, M.O.	La Have	14	240 00
94,652	Cashier	do	106	W. N. Reinhardt	do	15	240 00
97,085	D. Cronan	do	59	Henry Schnare, M.O.	Mahone Bay	12	177 00
88,355	D. A. Mader	do	85	C. U. Mader, M.O.	do	13	249 00
85,344	Donzella	do	118	Adam Selig, M.O.	Voglers Cove	14	240 00
96,826	Director	do	87	David Smith, M.O.	Lunenburg	14	240 00
97,089	Dictator	do	87	S. Watson Oxner, M.O.	do	*12	210 00
83,308	Ella	Liverpool	10	Jennis C. Hanson	Mahone Bay	*1	22 50
85,731	Eva L. H.	Lunenburg	62	Jacob Hiltz, M.O.	do	8	186 00
94,650	Elsie	do	47	John Schmeisser, M.O.	La Have	*10	134 60
96,821	Edgar T. Richard	do	55	Elias Richard, sr., M.O.	La Have	11	165 00
94,659	Enterprise	do	84	Albt. Cleversey, M.O.	do	*13	231 43
90,584	Eldora	do	75	Jno. Creaser	Ritcey's Cove	12	225 00
100,151	Erminie	do	91	Wm. Young, M.O.	Lunenburg	14	240 00
75,569	Empress	do	47	Simon Pentz, M.O.	La Have	9	141 00
100,481	Florence	do	29	W. A. Pickels, M.O.	Mahone Bay	*5	74 58
94,777	Florence M. Smith	do	98	Ben. Anderson, M.O.	Lunenburg	14	240 00
94,656	Florin	do	58	Robt. Dawson, M.O.	Bridgewater	12	174 00
92,638	Florence M.	do	83	Alex. Silver, M.O.	Lunenburg	12	240 00
80,829	Florence B.	do	32	John W. Pearl	do	*3	72 00
100,478	Gladiola	do	52	Kenneth Silver, M.O.	La Have	11	156 00
100,480	Gallant	do	57	Elias Richard, sr., M.O.	do	*11	163 88
90,862	Grenada	do	92	Reuben Romkey	do	*12	230 77
97,088	Glendale	do	38	Charles Bell, M.O.	do	8	114 00
97,083	Garland	do	51	Jno. D. Sperry, M.O.	Petit River	8	153 00
100,488	Garnet	do	56	Alvin Creaser, M.O.	Ritcey's Cove	12	168 00
94,773	Galatea	do	98	Jno. B. Yeung, M.O.	Lunenburg	14	240 00
90,582	G. A. Smith	do	95	Wm. Young, M.O.	do	*13	231 43
96,836	Gleaner	do	86	Wm. C. Acker, M.O.	do	14	240 00
100,158	H. N. Gardner	do	48	Clarence Adams, M.O.	La Have	12	144 00
90,859	Hector W. McG	do	99	Murdoch MacGregor, M.O.	do	15	240 00
90,825	Henry N. Batchelder	Port Medway	99	Sam. E. Teel, M.O.	Voglers Cove	*17	233 34
100,161	Hilda Maud	Lunenburg	37	Adam Selig, M.O.	do	*9	105 45
100,156	Hustler	do	44	L. B. Currie, M.O.	West Dublin	9	132 00
96,837	Irvin G.	do	80	Henry Gerhardt, M.O.	Lunenburg	14	240 00
94,970	Joseph O.	do	53	Thomas Oakley, M.O.	La Have	10	159 00
94,789	Joseph McGill	do	99	Henry Ritcey, M.O.	Ritcey's Cove	14	240 00
74,019	Jewel	do	52	Leonard Young, M.O.	Lunenburg	10	156 00
96,830	J. A. Silver	do	91	Charles L. Silver, M.O.	do	14	240 00
100,164	J. H. Ernest	do	97	S. Watson Oxner	do	14	240 00
94,785	J. C. Schwartz	do	89	Chas. Hewitt, M.O.	do	14	240 00
85,723	Jessie A. Loye	do	99	James A. Hirtle, M.O.	do	14	240 00
94,654	J. W. Geldert	do	88	Jas. W. Geldert, M.O.	do	16	240 00
92,639	Jennie Miller	do	83	Henry Adams, M.O.	do	12	240 00

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to Vessels, &c.—Nova Scotia—*Con.*

LUNENBURG COUNTY—*Continued.*

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
94,788	Laura C. Zwicker	Lunenburg	85	Abraham Ernst, M.O.	Mahone Bay	12	240 00
88,360	Lettie M. Hardy	do	97	W. A. Pickels, M.O.	do	*19	234 00
97,092	Lurline	do	57	Amiel Corkum, M.O.	La Have	12	171 00
83,316	Lottie	Port Medway	81	Sam. E. Teel, M.O.	Voglers Cove	14	240 00
94,780	Lawrence	Lunenburg	87	G. A. Smith, M.O.	Lunenburg	14	240 00
96,827	Leopold	do	93	Charles Smith, M.O.	do	15	240 00
96,832	Laura M. Knock	do	87	David Smith	do	14	240 00
96,838	La France	do	89	S. Watson Oxner	do	*12	222 86
100,484	Lavanda	do	53	George Conrad, M.	do	12	159 00
96,833	L. E. Young	do	89	Benj. Anderson, M.O.	do	14	240 00
90,854	Latona	do	107	L. Anderson & Co., M.O.	do	14	240 00
100,562	Millie L. E.	do	65	Abraham Ernst, M.O.	Mahone Bay	*11	186 88
90,823	Miletus	do	95	Jno. Shankle, M.O.	La Have	15	240 00
69,213	May Fly	do	12	Jacob Richard, M.O.	do	4	36 00
96,840	Mayflower	do	60	Robt. Dawson, M.O.	Bridgewater	10	180 00
100,162	Magic	do	45	John D. Sperry, M.O.	Petit River	8	135 00
97,052	Minnie Maud	Liverpool	84	John S. Wolfe, M.O.	West Dublin	15	240 00
92,632	Monarch	Lunenburg	83	J. H. Wilson, M.O.	Lunenburg	14	240 00
97,000	Maggie M. W.	do	88	do	do	14	240 00
92,635	M. B. Smith	do	84	Wm. C. Smith, M.O.	do	14	240 00
74,319	Merino	do	46	J. Jos. Rudolph, M.O.	do	9	138 00
100,487	Mabel B.	do	43	Thomas Ham, M.O.	do	10	129 00
92,633	Magnolia	do	83	Joshua Heckman, M.O.	do	12	240 00
49,777	Morris E. Geldert	do	99	Geo. Geldert, M.O.	do	14	240 00
94,775	Malabar	do	97	R. H. Griffith, M.O.	do	14	240 00
94,772	Molega	do	99	Ben. Anderson, M.O.	do	14	240 00
92,640	Minerva	do	83	Wm. C. Acker, M.O.	do	*11	230 00
100,153	Milo	do	99	J. Wm. Young, M.O.	do	14	240 00
88,342	Nova Zembla	do	79	Joseph Ham, M.O.	Mahone Bay	15	237 00
88,603	Nokomis	do	94	C. U. Mader, M.O.	do	14	240 00
100,485	Nightingale	do	52	John Haughn, M.O.	La Have	*10	148 91
94,655	Nevada	do	46	James Bell, M.O.	do	9	138 00
94,966	Nicanor	do	79	Henry Westhaver, M.O.	Martin's Brook	12	237 00
92,636	Nonpareil	do	88	John Zinck, M.O.	Lunenburg	14	240 00
90,827	Nyanza	do	116	L. Anderson & Co., M.O.	do	12	240 00
75,570	Olive Branch	do	14	John Church	Aspotogan	* 2	35 00
94,641	Ovando	do	87	Jeffry Publicover, M.O.	La Have	15	240 00
90,587	Ornatu8	do	89	Albert McKean, M.O.	do	15	240 00
88,346	Olive	do	102	Daniel Getson, M.O.	do	13	240 00
100,157	Orinoco	do	56	Isaac Westhaver, M.O.	Martin's Brook	11	168 00
85,562	Oresa	Barrington	14	Arthur Mason, M.O.	Eastern Point	4	42 00
94,779	O. P. Silver	Lunenburg	89	Chas. L. Silver, M.O.	Lunenburg	14	240 00
94,786	Ontario	do	89	Joshua Hirtle, M.O.	do	14	240 00
100,477	Pilot	do	42	Thos. Wilson, M.O.	Bridgewater	* 7	118 13
94,774	Puritan	do	94	Jas. Creaser, Sr., M.O.	Ritcey's Cove	14	240 00
100,486	Pandora	do	53	Benj. Lohnes, M.O.	Lunenburg	*12	152 89
85,647	Pembina	do	93	L. Anderson & Co., M.O.	do	15	240 00
97,087	R. C. Bruhm	do	61	Abraham Ernst, M.O.	Mahone Bay	11	183 00
92,320	Rialto	Liverpool	46	L. B. Currie, M.O.	West Dublin	9	138 00
100,473	Rapture	Lunenburg	57	Alvin Moser, M.O.	Lunenburg	12	171 00
96,834	Robert F. Mason	do	87	Martin Mason, M.O.	do	14	240 00
88,349	Senovar	do	89	Nathan Hiltz, M.O.	Martin's Point	14	240 00
100,165	Snow Queen	do	67	Leander Meisner	Mahone Bay	12	201 00
94,962	Steela E.	do	98	Reuben Ritcey	La Have	*12	222 86
100,471	Secret	do	86	J. B. Young, M.O.	Lunenburg	14	240 00
94,868	Sadie	do	79	Charles Smith, M.O.	do	14	237 00
100,475	Tartar	do	61	W. Norman Reinhardt, M.O.	La Have	12	183 00
100,476	Tokalon	do	52	Albert McKean, M.O.	do	*10	148 91
92,623	Torridon	do	105	Murdock MacGregor, M.O.	do	14	240 00

DETAILED STATEMENT of Fishing Bounties paid to Vessels, &c.—Nova Scotia—*Con.*LUNENBURG COUNTY—*Concluded.*

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
94,657	T. W. Langille	Lunenburg	71	Francis Conrad, M. O.	Lunenburg	*14	213 00
97,099	Union	do	78	Wm. Smeltzer, M. O.	do	10	214 50
97,098	Urania	do	99	David Heisler, M. O.	do	14	240 00
94,649	Valenar	do	83	Nathan Hiltz, M. O.	Martin's Point.	12	240 00
100,479	Venator	do	57	Jos. Silver, M. O.	Upper La Have.	†11	163 88
97,086	Vevia G.	do	53	James Getson, M. O.	La Have	11	159 00
85,635	Vanilla	do	102	John M. Ritcey, M. O.	Ritcey's Cove.	15	240 00
83,164	Valiant	do	88	Thos. A. Cook, M. O.	Ritcey's Cove.	13	240 00
85,735	Victory	do	97	A. H. Zwicker, M. O.	Lunenburg.	14	240 00
90,597	Vivian	do	99	do	do	14	240 00
94,956	Venezuela	do	93	Geo. Blair, M. O.	do	14	240 00
94,967	White Cloud.	do	97	C. U. Mader, M. O.	Mahone Bay.	14	240 00
94,642	Winnie C.	do	55	Edmen Walters, M. O.	La Have.	12	165 00
94,953	W. D. Richards	do	97	W. N. Reinhardt, M. O.	do	15	240 00
100,152	Werra.	do	85	David Smith, M. O.	Lunenburg.	14	240 00
96,829	Wisteria.	do	96	Freeman Anderson, M. O.	do	14	240 00
77,268	Zelu.	do	21	Gabriel Smeltzer, M. O.	do	6	63 00

† One of crew belongs to Newfoundland.

QUEEN'S COUNTY.

97,048	Annie and Lizzie	Liverpool	39	A. W. Hendry	Liverpool	7	104 00
75,571	Fanny	do	16	Frank Mouser	Brooklyn	5	48 00
59,475	Jessen	Lunenburg	69	John Hutt	Port Medway	*10	189 76
75,762	May Queen	Liverpool	17	Edward F. Campbell.	Liverpool	5	51 00
61,916	Only Son	do	16	J. H. Rhynard.	Brooklyn.	5	48 00
75,628	Rover	Shelburne	93	A. W. Hendry.	Liverpool	17	240 00
94,776	Volunteer.	Lunenburg	99	Murdoch McGregor	Ritcey's Cove.	*14	232 00
97,041	W. H. Smith	Liverpool	43	Herbert Smith	Brooklyn	10	128 85

RICHMOND COUNTY.

77,544	Alpha	Arichat	42	Wm. LeVesconte	D'Escousse	10	126 00
88,456	Alice May	do	39	do	do	9	117 00
83,086	Ada M.	Pt. Hawkesbury.	20	Wm. Burk	River Bourgeois.	5	60 00
36,474	Alexander Fraser.	Lunenburg	32	Anselme Sampson.	do	9	96 00
77,851	Buxom	Sydney	11	Thomas McGrath	L'Ardoise	*2	27 50
94,680	Bonnie Glen	Halifax.	17	Sylvester Bondrot.	Petit de Grat.	5	51 00
35,996	Blue Bell	Arichat	25	D. Gruchy & Son.	D'Escousse	8	75 00
38,501	B. Weir & Co.	do	25	Celestin Cordeau	River Bourgeois.	*6	69 65
54,156	British Lady	Halifax	19	Cyrille Sampson	do	*2	38 00
75,561	Boreas	Lunenburg	41	Jno. Colford.	Port Richmond.	*10	117 40
88,459	Caroline	Arichat	12	Wm. Babin.	Arichat	2	36 00
43,109	Chatham Head	Miramichi, N. B.	24	Dominique Fougère.	Poulaumont	*6	63 00
74,100	Candid	Arichat.	23	Désiré Burk	River Bourgeois.	8	69 00
72,061	C. P. M.	do	22	Désiré Burk, sen.	do	6	66 00
92,597	Dreadnot.	Sydney	10	Fred. Manbourquette.	Rockdale	*2	22 50
72,058	Daisy	Arichat.	34	Patrick Richard	Arichat	*3	89 25
83,033	Emma Proctor.	Pt. Hawkesbury.	41	Edward Proctor	Lower River Inhabitants	7	123 00
77,822	Eliza Smith	Arichat.	44	Patience Poirier	Low. D'Escousse	11	132 00
75,616	Eliza Jane.	Shelburne	22	Casimir Vigneau	Arichat	*2	49 50
83,395	Elerie	Halifax	29	Docité Fougère	River Bourgeois.	8	87 00
38,477	Elizabeth.	Arichat.	18	Placide Burk	do	*5	49 50
69,190	Emma.	do	47	Angus J. Boyd	do	10	141 00
77,843	Elizabeth	do	30	Isidore Sampson.	do	8	90 00

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to **Vessels**, &c.—Nova Scotia—*Con.*

RICHMOND COUNTY—*Concluded.*

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
61,606	Edmund Russell	Arichat	28	Geo. Walker	Basin River Inhabitants	3	84 00
74,166	Fama	Halifax	44	Wm. Le Vesconte	D'Escousse	10	132 00
83,399	Fannie R. C.	do	22	Peter Boudrot	River Bourgeois	* 6	61 29
88,462	Fannie S	Arichat	28	Daniel Sampson	River Bourgeois	8	84 00
85,599	Guide	Halifax	38	Edward Poirier	L'w'r D'Escousse	11	114 00
90,734	H. M. Crosby	Port Hawksbury	64	J. W. Cruickshank	Port Richmond	*13	185 15
95,764	Ida C. Spoffard	do	54	Robert Murray	do	4	162 00
85,560	Jacques	Yarmouth	58	Fredk. Poirier	D'Escousse	*13	167 79
88,454	Jubilee	Arichat	34	D. Gruchy & Son	do	10	102 00
38,486	Julia	do	20	Louis Burk	River Bourgeois	5	60 00
80,972	John Vincin	Sydney	27	Peter Burk	do	5	51 00
83,135	J. B. M.	Halifax	27	Louis Boucher	do	* 3	70 88
88,455	Laura Victoria	Arichat	39	Jno. Mauger	Cape LaRonde	10	117 00
72,070	Lennox	do	46	D. Gruchy & Son	D'Escousse	11	138 00
75,875	Lida and Lizzie	do	56	Wm. LeVisconte	do	12	168 00
38,516	Lady of the Lake	do	26	Peter Landry	St. Peter's	* 7	73 13
72,071	Lumen Dei	do	20	Urbain Sampson	River Bourgeois	5	60 00
83,100	Morning Star	Port Hawksbury	13	Abraham Gerrior	Port Royal	2	39 00
69,969	Morning Light	do	39	David Walker	Basin River Inhabitants	4	117 00
38,417	Messenger	Arichat	30	Remi Fougère	Poulaumont	10	90 00
46,082	Mary	do	43	D. Gruchy & Son	D'Escousse	12	129 00
88,431	Mayflower	Halifax	21	Stephen Dugas	River Bourgeois	* 4	56 70
72,063	Mayflower	Arichat	12	John Burk	do	4	36 00
38,522	Mary	do	23	Isiah Boudrot	do	* 3	49 29
74,365	Nova Stella	do	53	Leonie Poirier	L'w'r D'Escousse	14	159 00
72,048	Neptune	do	26	Henry Sampson	River Bourgeois	* 5	66 86
61,630	Olive J	Halifax	57	Geo. Malcolm	Port Malcolm	7	171 00
54,139	Ocean Belle	do	20	Elias Bouchard	River Bourgeois	6	60 00
74,332	Proditor	do	54	Alfred Poirier	L'w'r D'Escousse	*13	156 22
72,067	Philomen D.	Arichat	22	Tranquil Dégout	River Bourgeois	7	66 00
38,462	Partners	do	26	Thomas Sampson	do	* 6	68 26
88,452	R. Ferguson	do	24	Maurice Burk	St. Peters	7	72 00
75,763	Ripple	do	17	Dan. McDonald	Basin River Inhabitants	2	51 00
88,439	Ripple	Halifax	20	Isidore Boudrot	Petit de Grat	4	60 00
72,059	Richmond Queen	do	37	Anselm Fougère	Poulaumont	9	111 00
64,033	Ripple	Port Hawksbury	34	G. A. Cruickshank	Port Richmond	* 2	76 50
37,612	Sea Slipper	Lunenburg	41	Chas. Mauger	Cape LaRonde	10	123 00
85,645	Sissi Belle	Halifax	40	Amable Pottie	False Bay	10	120 00
51,781	S. E. Cove	Arichat	54	Peter Campbell	Arichat	*13	156 22
92,579	Thistle	Sydney	11	A. Manbouquette	L'Ardoise	3	33 00
38,480	Two Brothers	Arichat	32	Simon Landry	River Bourgeois	8	96 00
61,900	Union	Halifax	20	Felix Burk	do	* 4	50 00
71,034	Vanguard	Barrington	47	Dom. Boudrot	Petit de Grat	* 6	123 38
57,662	Village Bride	Halifax	24	Petter Malcolm	Port Malcolm	5	72 00

SHELBURNE COUNTY.

88,552	Afton	Shelburne	72	Jonathan Locke	Lockeport	16	216 00
41,772	Ann Maria	Lunenburg	32	Geo. Redding	do	9	96 00
94,632	A. C. Greenwood	Shelburne	15	Thos. D. Goodrick	Sandy Point	* 3	33 75
90,655	Annina	Yarmouth	12	W. H. Kenney	Clarkes Harbour	* 6	33 43
85,490	Billy Browne	Shelburne	88	Enos Churchill	Lockeport	*14	213 36
90,900	Bertha Kelly	Yarmouth	12	Wm. P. Snow	Port La Tour	3	36 00
88,551	Blanche M. Thorbourne	Shelburne	95	Jn. H. Thorbourn	Jordan Bay	*21	234 55
96,970	Charlie Richardson	do	26	Enos Churchill	Lockeport	8	78 00
94,942	Coronila	do	23	C. Locke & Co.	do	* 6	60 38

DETAILED STATEMENT of Fishing Bounties paid to **Vessels**, &c.—Nova Scotia—*Con.*SHELburne COUNTY—*Concluded.*

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.	
							\$	cts.
90,434	C. A. Goreham	Barrington	33	Chas. Goreham	Wood's Harbour	* 6	79	20
61,905	Champion	Liverpool	14	Robert Smith	Atwood's Brook	* 2	28	00
83,492	Dessie	do	11	Edward Capetick	Lockeport	* 3	28	88
75,624	Dwina	Shelburne	52	Wm. Lloyd, jun.	Brighton	*11	149	50
83,043	Ella A. Downie	do	73	Enos Churchill	Lockeport	*12	197	10
96,976	Edith	do	40	Churchill Locke	do	* 8	113	34
88,545	Ella Maud	do	55	C. Locke & Co	do	13	165	00
75,558	Emma B	Barrington	94	Benj. Goodwin	Cape Island	*13	224	00
77,603	Eldon C	do	27	Arthur Hood	Shelburne	* 5	74	25
90,644	Eva Mc	Yarmouth	19	Thos. L. Nickerson	Wood's Harbour	* 3	38	01
85,476	Fleetwing	Shelburne	11	Edward Hammond	Jordan Bay	* 4	29	70
85,478	Glenora	do	76	Churchill Locke	Lockeport	*14	213	76
90,437	Geneva Myrtis	Barrington	32	Colin C. Nickerson	Wood's Harbour	* 4	72	00
85,503	G. P. Taylor	St. John, N.B.	14	Nathaniel Swin	Clark's do	3	42	00
90,647	Hattie Eline	Yarmouth	11	Charles Reynolds	Port Latour	5	33	00
80,799	Hattie T	Digby	16	Isaac Kendrick	Shag Harbour	8	48	00
88,574	Jersey Lily	Shelburne	96	Enos Churchill	Lockeport	*15	225	90
94,941	John Purney	do	98	Geo. King	Sandy Point	*19	223	65
85,566	J. Lyons	Barrington	14	Thos. L. Banks	Doctor's Cove	* 3	36	75
77,761	Knight Templar	Shelburne	90	Enos Churchill	Lockeport	18	240	00
73,907	Katie	Liverpool	14	Burns McKenzie	Green Harbour	6	42	00
90,642	Komaroff	Yarmouth	10	John R. Snow, M.O.	Port Latour	* 2	22	50
54,114	Lone Star	Halifax	29	C. Locke & Co	Lockeport	* 7	81	57
90,438	Lark	Barrington	13	Samuel Atwood	Barrington	* 2	24	38
80,624	Lima	Yarmouth	12	Smith Webb	Newelton	* 6	33	43
85,488	Mabel Somers	Shelburne	98	Enos Churchill	Lockeport	*16	232	95
83,256	Marquis of Lorne	Annapolis	27	Churchill Locke	do	* 5	63	00
83,493	Mary C.	Liverpool	84	C. Locke & Co	do	20	240	00
88,583	Mary O'Dell	Yarmouth	14	John Sholes	Bear Point	* 5	38	50
75,550	Martino	Barrington	11	Theodore Nickerson	Shag Harbour	* 4	29	70
96,975	Mary	Shelburne	98	John A. McGowan	Shelburne	*21	234	55
83,434	Mary May	Barrington	20	Arthur Nickerson, M.O.	Doctor's Cove	* 4	45	00
72,977	Nellie H. Hamm	Digby	26	Dan. V. Kenney	Clark's Harbour	* 7	63	84
96,977	Oriole	Shelburne	43	C. Locke & Co	Lockeport	*11	123	63
90,439	Oscar F.	Barrington	18	James F. Swin	Clark's Harbour	7	54	00
55,830	Oregon	Shelburne	20	John C. McGray	Centreville	* 5	55	00
88,483	Sarah H. Seaton	do	95	C. Locke & Co	Lockeport	*19	228	58
90,690	Sandalphon	do	105	do	do	*17	233	34
85,390	Susan C.	Barrington	21	P. P. Smith	Centreville	* 4	52	50
90,433	St. Ann	do	11	John W. Kenney	Clark's Harbour	6	33	00
88,542	Three Bells	Shelburne	92	Enos Churchill	Lockeport	*13	206	69
96,961	Tivoli	do	24	Jonathan Locke	do	7	72	00
90,894	Theresa	Yarmouth	18	Chas. E. Kenny	Clark's Harbour	* 6	45	00
90,893	Thomas H.	do	13	Fred. Nickerson	do do	* 8	36	84
85,541	Willie M.	do	24	Herbert Kendrick	Shag do	9	72	00
90,430	Will Carleton	Barrington	88	H. D. Smith, M.O.	Port Latour	*16	232	95
75,722	Yuba	Yarmouth	15	J. A. Nickerson	Shag Harbour	8	45	00

VICTORIA COUNTY.

57,687	Quickstep	Halifax	22	John Rose	McKinnon's Har	* 2	55	00
73,119	Royal	do	12	Angus McFarlane	do	* 2	30	00

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to **Vessels, &c.**—Nova Scotia—*Con.*

YARMOUTH COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
80,627	Annie D.	Yarmouth	71	D. D'Entremont	Pubnico	*19	207 68
97,034	A. D'E	do	15	I. D'Entremont	do	*3	33 75
94,980	Aurore	do	86	Leon D'Eon	do	*21	240 00
80,647	Annie M. Bell	do	64	Raymond Amiro	East Pubnico	*19	187 20
71,032	Arthur	do	22	J. B. Lewis	Yarmouth	*7	56 10
94,977	Civilian	do	97	D. L. Amiro	West Pubnico	*16	240 00
80,605	Coral Leaf	do	71	Harvey Goodwin	Pubnico Head	*17	197 04
69,217	Chlorus	do	57	A. F. Stoneman & Co.	Yarmouth	*17	171 00
85,536	Circassian	do	98	do	do	*16	226 68
66,679	Diploma	do	84	Nic. D'Entremont	West Pubnico	*20	240 00
90,871	Dora	do	63	A. F. Stoneman & Co.	Yarmouth	*20	184 50
97,036	Eva	do	10	Gabriel Bourque	Sluice Point	*5	27 50
85,551	Ethel	do	117	J. H. Porter & Co.	Tusket Wedge	*16	240 00
90,654	Flora	do	64	D. D'Entremont	Pubnico	*20	192 00
94,972	Florence	do	11	Joshua Boudreau	Tusket Wedge	*3	33 00
100,315	Freddie A.	do	10	Eben. Crosby	Yarmouth	*3	24 00
90,885	Georgina	do	90	H. & N. B. Lewis	do	*22	240 00
85,554	Hazel Glen	do	95	Hy. T. D'Entremont	L. E. Pubnico	*14	240 00
80,643	Hazel Dell	do	87	Parker, Eakins & Co.	Yarmouth	*16	232 95
80,641	Jonathan	do	68	C. T. D'Entremont	W. Pubnico	*20	204 00
88,581	Kingfisher	do	47	A. F. Stoneman & Co.	Yarmouth	*15	132 72
51,972	Lydia Ryder	do	57	L. P. D'Entremont	Pubnico	*20	171 00
80,614	Louise	do	85	J. H. Porter & Co.	Tusket Wedge	*17	233 34
90,887	L'Etoile	do	48	do	do	*17	144 00
85,533	Minnie C.	do	12	J. N. Sanders	Port Maitland	*3	31 50
88,596	M. A. Louis	do	64	M. A. Surette	Pubnico	*20	192 00
85,539	Maggie Jane	do	12	Geo. Wyman	Sandford	*4	32 40
74,339	Maitland	do	42	H. & N. B. Lewis	Yarmouth	*12	110 28
90,659	N. A. Laura	do	59	Chas. C. D'Entremont	W. Pubnico	*20	177 00
74,330	Nokomis	do	68	J. R. Rogers	Sluice Point	*20	199 15
90,892	Nellie	do	59	J. H. Porter & Co.	Tusket Wedge	*19	177 00
80,645	Opal	do	97	Parker, Eakins & Co.	Yarmouth	*11	202 50
80,628	Roseneath	do	92	Byron Hines	E. Pubnico	*19	240 00
100,313	Souvenir	do	71	S. D. D'Entremont	W. Pubnico	*20	213 00
88,589	Sandford	do	20	Howard Thurston	Sandford	*4	47 16
85,935	Sigefroi	do	40	J. H. Porter & Co.	Tusket Wedge	*9	120 00
77,956	Speed	Annapolis	13	J. H. Eldridge	Yarmouth	*2	27 30
96,962	Sunrise	Yarmouth	18	J. E. Crosby	do	*2	40 50
88,597	Uncle Sam	do	97	Geo. D. D'Entremont	W. Pubnico	*22	240 00
90,882	Will-o'-the-Wisp	do	51	Anthony D'Entremont	do	*18	153 00
90,897	Wrasse	do	56	A. F. Stoneman & Co.	Yarmouth	*21	168 00
90,896	Wapiti	do	100	do	do	*18	240 00

DETAILED STATEMENT of Fishing Bounties paid to Vessels, &c.—Continued.

PROVINCE OF NEW BRUNSWICK.

CHARLOTTE COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner. or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
94,727	Aurelia.....	St. John.....	22	James Scovil.....	Flagg's Cove.....	* 2	55 00
64,011	Bee.....	St. Andrew's.....	18	Henry Fletcher.....	Wilson's Beach.....	3	54 00
88,409	Carrie.....	Digby, N.S.....	11	James McLeese.....	Back Bay.....	2	33 00
59,375	Cadet.....	St. Andrew's.....	19	Ethelbert Savage.....	Wilson's Beach.....	3	57 00
88,387	Comet.....	Windsor, N.S.....	10	Thomas Carter.....	Beaver Harbour.....	3	30 00
74,326	Dreadnaught.....	St. Andrew's.....	19	Alfred Stanley.....	Flagg's Cove.....	3	57 00
92,515	Dispute.....	do.....	13	Fred. Russell.....	Seal Cove.....	3	39 00
92,503	Defiance.....	do.....	17	Frank Calder.....	Welchpool.....	* 2	42 50
80,803	Exenia.....	Windsor, N.S.....	18	Wm. F. Parker.....	Beaver Harbour.....	3	54 00
92,505	Edith R.....	St. Andrew's.....	47	Chas. Conley.....	Leonardville.....	7	141 00
80,882	Ella Mabel.....	do.....	14	Thos. Mitchell, jr.....	Welchpool.....	3	42 00
59,373	E. M. Oliver.....	do.....	14	S. L. Justason.....	Pennfield.....	a 2	14 00
92,511	Fleetwing.....	do.....	11	B. H. Cosseboom.....	Whitehead.....	2	33 00
59,393	Fannie.....	do.....	12	James Greenlaw.....	Lord's Cove.....	4	36 00
88,276	Falcon.....	do.....	12	James Brown.....	Wilson's Beach.....	3	36 00
59,400	Foam Bell.....	do.....	11	Thomas Bright.....	Pennfield.....	3	33 00
94,834	Flora Wooster.....	do.....	22	Hy. Burnham.....	Grand Manan.....	a 3	33 00
94,835	Georgie Linwood.....	do.....	25	Joshua Hawkins.....	Beaver Harbour.....	5	75 00
59,397	Gazelle.....	do.....	47	Wm. Watt.....	Grand Manan.....	* 7	119 85
59,396	Gertie Westbrook.....	do.....	16	James Cline.....	Lord's Cove.....	5	48 00
92,508	Grey Eagle.....	do.....	13	N. Mitchell, sr.....	Welchpool.....	3	39 00
80,650	Happy Home.....	Yarmouth, N.S.....	14	Michl. Nodding.....	Beaver Harbour.....	3	42 00
83,463	Havelock.....	St. Andrew's.....	33	Wm. James.....	Wilson's Beach.....	5	99 00
94,839	Harry.....	do.....	14	Howard Jackson.....	do.....	* 2	21 00
59,342	Lizzie McGee.....	do.....	14	Andrew McGee.....	Back Bay.....	* 3	33 60
77,766	Laconic.....	Shelburne, N.S.....	15	Jno. Welch.....	Leonardville.....	3	45 00
77,965	Lydia B.....	St. Andrew's.....	18	Jno. M. Calder.....	Welchpool.....	3	54 00
88,407	Linnet.....	Digby, N.S.....	15	Alva Brown.....	Wilson's Beach.....	3	45 00
59,395	Little Minnie.....	St. Andrew's.....	11	Joseph McGee.....	Back Bay.....	* 2	27 50
88,273	Lillian E.....	do.....	13	Andrew McGee.....	do.....	3	39 00
59,321	Little Nell.....	do.....	21	Wm. McLellan.....	Welchpool.....	* 1	27 30
92,514	Maggie Jane.....	do.....	10	John Cook.....	Back Bay.....	2	30 00
92,501	Maybe.....	do.....	11	Jno. Kelly.....	do.....	3	33 00
88,442	Mystery.....	Windsor, N.S.....	14	E. A. Munroe.....	Beaver Harbour.....	3	42 00
77,970	Mary Emeline.....	St. Andrew's.....	18	James Murphy.....	Flagg's Cove.....	3	54 00
59,326	Maud Holmes.....	do.....	21	Jacob Cook.....	Le Tête.....	* 2	44 10
92,509	Mary Jane.....	do.....	13	A. A. Calder.....	Welchpool.....	* 2	27 30
77,967	Naomi.....	do.....	14	Wm. James.....	Wilson's Beach.....	3	42 00
94,833	Newsboy.....	do.....	16	Ernest Lank.....	do.....	3	48 00
75,602	Ocean Lily.....	Digby, N.S.....	17	Thomas Mitchell.....	Welchpool.....	* 2	42 50
75,716	Onward.....	Yarmouth, N.S.....	11	John Watt.....	Flagg's Cove.....	* 2	27 50
92,518	Peril.....	St. Andrew's.....	18	Martin Eldridge.....	Beaver Harbour.....	3	54 00
75,591	Rise and Go.....	do.....	16	Wm. Sirls.....	Wilson's Beach.....	3	48 00
88,287	Satellite.....	do.....	26	M. Eldridge and E. Wadlin.....	Beaver Harbour.....	5	78 00
88,284	Sea Foam.....	do.....	13	Leonard Urquhart.....	Castalia.....	3	39 00
88,272	Simeon H. Bell.....	do.....	14	Charles Dixon.....	Flagg's Cove.....	* 2	35 00
59,357	Silver Bell.....	do.....	13	Alex. Mallock.....	Wilson's Beach.....	3	39 00
88,414	Trumpet.....	St. John.....	20	Geo. W. Wright.....	Beaver Harbour.....	3	60 00
92,504	Tiger.....	St. Andrew's.....	15	James Nesbitt.....	Flagg's Cove.....	3	45 00
59,387	Telephone.....	do.....	19	C. H. Greenwood.....	Wilson's Beach.....	4	57 00
94,832	Venus.....	do.....	42	Simeon Brown.....	do.....	6	126 00
77,969	Wave Queen.....	do.....	11	Wm. McMahan.....	Le Tête.....	3	33 00

a. Owner debarred from participation in bounty.

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to **Vessels, &c.**—New Brunswick—
Continued.

GLOUCESTER COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							\$ cts.
96,739	Angeline	Chatham	14	Octave Gionet	Caraquet	3	42 00
92,419	Anna	do	12	Docité Chiasson	Lameque	* 3	36 00
97,194	Alika	do	12	Lange Poulin, sr	do	* 2	30 00
72,099	Adelina	do	12	Auguste Poulin	do	3	36 00
72,079	Betsy	do	13	Sébastien Noël	Little Lameque	3	39 00
96,725	Bessie T.	do	10	C. C. Turner	St. Isidore	3	30 00
96,730	Christina	do	11	Chas. DeGruchy	Caraquet	4	33 00
92,412	Dollie Dutton	do	13	Richard Young	Shippegan	* 3	39 00
96,737	Elmina	do	11	Jacques Noël	Lameque	3	33 00
100,293	Eliza	do	15	James DeGrace	Shippegan	* 3	39 38
92,417	Evangeline	do	11	Richard Young	do	* 4	29 70
96,723	Emma	do	15	Ludger Duguay	Shippegan Island	3	45 00
85,699	Four Sisters	do	10	Marcel Caron	Caraquet	3	30 00
61,437	Flying Fish	do	11	Elie Chiasson	Little Lameque	3	33 00
61,445	Flavie	do	13	Théophile Duguay	Lameque	4	39 00
96,736	Fly	do	14	Richard Young	Shippegan	* 2	31 50
96,733	Gem	do	12	do	do	* 3	31 50
92,418	Grip	do	12	James Davidson	Tracadie	3	36 00
96,724	Isabel	do	11	Pierre Noël	Lameque	3	33 00
92,403	Maria	do	25	Ubalde Landry	Grande Anse	3	75 00
100,295	Marie Louise	do	18	J. A. Paulin	Caraquet	4	54 00
100,292	Marie Joseph	do	12	Lazare Gauvin	Little Lameque	3	36 00
88,669	Morning Star	do	12	Gustave Gionet	Pokemouche	3	36 00
92,420	Mary Louise	do	13	Wm. LeBreton	do	3	39 00
61,447	Merida	Miramichi	13	A. Aché	Lameque	* 3	34 13
72,100	Marie	Chatham	11	Onésime Chiasson	do	3	33 00
61,442	Marie Cécile	do	15	Olivier Duguay	do	4	45 00
92,413	Mary Jane	do	14	Théodore Savoy	Tracadie	4	42 00
96,740	Providence	do	13	Prosper Albert	Caraquet	3	39 00
72,076	Providence	Miramichi	12	Thomas Ahier	do	* 3	31 50
96,732	Providence	Chatham	11	Jos. L. Robichaud	Shippegan	* 1	5 50
97,191	Rita	do	12	Chas. DeGruchy	Caraquet	3	36 00
61,406	Reward	do	11	Hyacinthe LeBoutillier	do	* 3	28 88
61,438	Rosane	do	13	Lange Duguay	Little Lameque	4	39 00
96,727	Ryse	do	11	Jérémie Aché	Lameque	3	33 00
92,408	Sarah A. W.	do	15	R. J. Wilson	Miscou Island	4	45 00
74,401	Sara	do	11	Nazaire Noël	Lameque	3	33 00
96,731	Sea Star	do	13	Joseph M. Savoy	Shippegan Island	3	39 00
96,738	Three Brothers	do	12	Richard Young	Shippegan	3	36 00
96,735	White Fish	do	12	Joseph Savoy, jr.	Lameque	4	36 00
88,663	Wm. Sinclair	do	17	Gervais Duguay	Shippegan	4	51 00

KENT COUNTY.

94,793	May English	Richibucto	10	Daniel English	Kingston	* 1	22 50
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NORTHUMBERLAND COUNTY.

75,904	Empress	Chatham	26	R. R. Call	Newcastle	7	78 00
75,891	May Queen	do	23	do	do	5	69 00
78,044	Princess Louise	do	21	do	do	5	63 00
78,895	Two Brothers	do	26	do	do	7	78 00

DETAILED STATEMENT of Fishing Bounties paid to **Vessels**, &c.—New Brunswick—
Continued.

ST. JOHN COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
							¢ cts.
85,972	Dove.....	St. John.....	11	Sam. McGuire, sr.....	Pisarinco.....	4	28 87
88,253	E. B. Colwell.....	do.....	19	Addison Thompson.....	Chance Hbr.....	* 4	57 00
57,181	Hattie.....	Windsor, N.S.....	13	S. Galbraith.....	Pisarinco.....	3	39 00
59,394	Hattie.....	St. Andrew's.....	10	C. Harkins.....	Dipper Hbr.....	3	30 00
83,259	Hattie May.....	Annapolis, N.S.....	15	Jno. Butler.....	Musquash.....	3	45 00
59,322	Sea Flower.....	St. John.....	11	Jas. Thompson.....	Chance Hbr.....	3	33 00
72,973	Sea Breeze.....	Digby, N.S.....	13	Jno. G. Graham.....	Musquash.....	3	39 00

WESTMORELAND COUNTY.

78,049	Pholine.....	Chatham.....	26	F. X. Legère.....	Shediac.....	5	71 50
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Fisheries' Report.

DETAILED STATEMENT of Fishing Bounties paid to Vessels, &c.—Continued.

PROVINCE OF PRINCE EDWARD ISLAND.

KING'S COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.	
							\$	cts.
74,141	Belle	Guysboro', N.S.	31	Alex. Jackson	Murray Hbr	* 5	79	70
69,132	Belle of the Bay	do	20	Mathew Gosbee	do South	4	60	00
92,675	Can't Help It	Pictou, N.S.	40	John Herring	do	8	120	00
38,335	Elizabeth	Arichat	17	D. W. Hemphill	Georgetown	6	51	00
92,465	Elisha Crowell	Charlottetown	69	Jno. Cairns	Montague	3	125	70
83,196	Ethel Blanche	Pictou, N.S.	17	Reuben Cahoon	Beach Point	4	51	00
88,644	Hattie	Charlottetown	18	Henry Dicks	Georgetown	4	54	00
75,882	Julia Ward	do	39	Wm. Harris	Murray Hbr	7	104	00
75,882	Lord McDonald	do	15	David Cahoon	do	3	45	00
69,109	Marcella Butler	Halifax, N.S.	38	Jno. Hemphill	Burnt Point	4	114	00
90,639	Morell	Charlottetown	16	Edward Delorey	Brudenell	* 3	38	40
88,350	Orion	do	77	Aaron Cogswell	Georgetown	15	231	00
90,488	Wave	do	19	James Delorey	Brudenell	* 0	28	50

PRINCE COUNTY.

72,081	Annie	Chatham, N.B.	13	Jno. McDonald	Campbellton	* 2	32	50
71,310	Blackwatch	Charlottetown	24	Benj. Perry	Alberton	4	72	00
82,086	Charlie	do	64	J. H. Myrick & Co.	Tignish	5	192	00
55,827	Candor	Shelburne	77	J. S. Allen	Summerside	* 5	198	06
86,642	Expresse	Charlottetown	46	John Champion	Alberton	13	138	00
71,331	Jessie Newell	Barrington	63	D. Montgomery	Summerside	5	189	00
83,105	Katie Bell	Richibucto	11	J. T. Murphy	Campbellton	* 1	22	00
59,663	Lottie	Charlottetown	57	J. H. Myrick & Co.	Tignish	* 3	128	25
92,455	Mikado	do	38	John Agnew	Alberton	4	102	60
83,096	St. Patrick	Pt. Hawkesbury	11	Jno. White	do	3	33	00
96,926	Sea Foam	Charlottetown	15	W. G. Ramsay	Malpeque	* 4	40	50
92,610	S. A. Parkhurst	Sydney	43	Jas. S. Gordon	Alberton	10	129	00

QUEEN'S COUNTY.

92,464	Eliza M.	Charlottetown	18	Wm. Bell	French River	* 3	43	20
92,466	G. H. Gardiner	do	17	G. H. Pursey	North Rustico	* 3	44	62
75,782	Hattie F.	do	35	Wallace Harding	French River	* 4	75	82
96,936	Katie & Ella	do	20	Geo. H. Toombs	Charlottetown	4	60	00
71,334	Watchman	Barrington, N.S.	15	H. M. Churchill	North Rustico	* 1	27	00

DETAILED STATEMENT of Fishing Bounties paid to Vessels, &c.—Continued.

PROVINCE OF QUEBEC.

BONAVENTURE COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	Nc. of Crew paid.	Amount of Bounty paid.
							% cts.
80,716	Annie.....	New Carlisle..	10	Wm. Buttle.....	New Carlisle....	* 2	25 00

GASPÉ COUNTY.

73,495	Canadienne.....	Halifax, N.S....	52	John N. Arseneau....	Grindstone, M.I.	11	149 50
71,357	Emma Gidney.....	do.....	48	John P. Savage.....	Amherst.....	11	144 00
75,449	Marie Louise.....	Gaspé.....	11	A. Lacouvie.....	Sandy Beach....	3	33 00
94,677	Progress.....	Halifax, N.S....	14	Geo. A. Leslie.....	Amherst Hbr....	* 3	36 75

SAGUENAY COUNTY.

74,270	Amarilda.....	Quebec.....	24	Pierre Bernier.....	Bic.....	4	72 00
42,436	Amelia.....	Gaspé.....	50	Paul Cormier.....	Pt. Esquimaux..	10	150 00
57,742	Acars.....	Halifax.....	30	Fred. Jomphe.....	do.....	7	90 00
83,370	C. M. G. P.....	Quebec.....	46	Nap. Picard.....	do.....	10	138 00
59,909	Elizabeth.....	do.....	27	J. & E. Caron.....	Sandy Bay.....	4	81 00
80,754	Eugenie.....	do.....	48	André Vigneau.....	Pt. Esquimaux..	* 8	136 00
75,679	Gleaner.....	do.....	41	Luke Cormier.....	do.....	* 9	116 85
85,750	H. B.....	do.....	57	J. B. & H. Boudreau.	do.....	9	171 00
85,753	Java.....	do.....	46	Dom. Cormier.....	do.....	9	138 00
42,435	Labrador.....	Gaspé.....	43	Narcisse Rioux....	do.....	8	129 00
55,863	Marie Adelmína..	Quebec.....	13	Cyrille Levesque....	Green Island...	3	39 00
69,584	Marie Louise.....	do.....	23	Pierre Ouellette....	Quebec.....	4	69 00
69,382	Marie du SacréCœur	Gaspé.....	46	O. Turbide, et al	Pt. Esquimaux..	10	138 00
69,662	Marie Aurélie....	Quebec.....	32	Joseph Gagné, sr.	Murray Bay....	5	96 00
69,380	Marie Anne.....	Gaspé.....	36	Hypolite Landry....	Pt. Esquimaux..	* 7	101 25
80,753	Stella Maris....	Quebec.....	51	L. & C. Cumming....	do.....	10	153 00
69,591	Ste. Marie.....	do.....	37	Alexis Sherer.....	do.....	8	111 00
66,727	Willow.....	do.....	18	Louis Boulet.....	Montmagny....	4	54 00

Fisheries Report.

DETAILED STATEMENT of Fishing Bounties paid to Vessels, &c.—Continued.

PROVINCE OF NOVA SCOTIA.

The following Vessel claims for 1891, held in abeyance were paid in 1892-93.

HALIFAX COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
55,836	Frank Newton.....	Sydney.....	40	Theo. Conrod (1)	Sheet Harbour..	7	\$ cts. 30 00

(1) Owner debarred.

PROVINCE OF NEW BRUNSWICK.

KENT COUNTY.

Official Number.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty paid.
83,104	Minnie Long	Richibucto.....	20	Wm. Long	Richibucto	2*	\$ cts. 25 00

APPENDIX No. 3.

REPORT ON THE FISHERIES PROTECTION SERVICE OF CANADA, 1893,
BY ACTING COMMANDER O. G. V. SPAIN.

The Honourable

SIR CHARLES HIBBERT TUPPER, K.C.M.G.,
Minister of Marine and Fisheries.

SIR,—I have the honour to report to you on the work of Fisheries Protection Service under my command for the past season.

"Acadia," Commander O.G.V. Spain, commissioned 1st June, paid off, 14th Nov.

"Stanley," Captain Finlayson, commissioned 15th June, paid off, 4th October.

"Curlew," Captain Pratt, remains in commission.

"Constance," Captain May, commissioned April, paid off, November.

"Vigilant," Captain Knowlton, commissioned 15th April, paid off, December.

"Kingfisher," Captain Kent, commissioned 1st June, paid off, 1st November.

"La Canadienne," Captain Bélanger, commissioned May, paid off, October.

The "Acadia" was employed during the season on the coasts of Nova Scotia, Cape Breton, and in the Gulf; she also made a trip to various places in the Gulf with the International Fisheries Commissioners.

"La Canadienne" took her district on the Quebec shore and the Northern Gulf, this vessel was on special service the whole season, and worked independently of the other vessels of the fleet.

The "Stanley" cruised between the east point of Prince Edward Island and Port Daniel, in the province of Quebec, this vessel during the season made several special trips with officials to Anticosti, St. Paul's Island, &c.

The "Curlew" was employed throughout the season in the Bay of Fundy and on the Nova Scotia fishing grounds, making one trip round to Shelburne in November.

The "Constance" was employed in the Upper Gulf and River St. Lawrence doing revenue work. This vessel has been fitted with forced draught, and a steam cutter, to enable her to more effectually carry out her work as a revenue cruiser, it is also proposed to fit her with a search light.

The "Vigilant." This sailing schooner went into commission on the 15th April, and proceeded to the Magdalen Islands to meet the fleet. She was detained at Gaspé for some time, having made a seizure of the schooner "Laurence A. Monro" for an infraction of the customs laws, after the release of this vessel on payment of a fine, she was employed nearly the whole of the remainder of the season putting a stop to illegal lobster fishing on the south-east coast of Nova Scotia. This schooner remains out until the fishing fleet have departed from Canadian waters.

"Kingfisher." This schooner was chartered from Mr. Joe McGill, of Shelburne, and has proved herself a most efficient vessel in every respect. She was engaged off the east point of Prince Edward Island nearly the whole season, with the exception of a short time when she was employed on the Nova Scotia shore.

The granting of half-pay to the officers of the Fisheries Protection Service during the winter months when the vessels have to be laid up, has proved very beneficial to the service, instead of probably getting nearly all new officers every year, the old ones, who are beginning to understand the necessary drill and discipline requisite on board an armed government vessel, return. The liberality of the government was very much appreciated by these officers.

Fisheries Report.

Good men are also extremely difficult to get about June, when most of the vessels commission. If some system could be adopted by which three or four of the best men at any rate, in each ship could be retained during the winter, it would be a great benefit to the service. At the present time at the end of the commission the men are all beginning to get really smart and well set up, and well drilled in the various exercises with the rifle and the cutlass, and the movements on the march, we lose them all, and have to begin with nearly all green hands in the following spring, whereas if three or four of the best hands were retained from each ship and then distributed in the spring, they would be of immense assistance in getting the remainder of the men into proper order.

The work of looking after the shore fisheries, by which is meant the actual enforcement of the laws for the regulation of the fisheries on the coast, has assumed very large proportions this year, and the work of enforcing the lobster regulations has taken up a great deal of the time of the fleet this season, whenever they could possibly be spared from their other duties. To effectually carry out these lobster regulations, it is most essential that two steam launches should be provided to act as tenders to the cruisers, without these it is almost impossible to keep a decided check on the illegal lobster fishing, as most of the vessels draw too much water to get near, and this entails an enormous lot of work on the boats' crews, causing them to pull very long distances, which they are unable to keep up for any length of time, the crews of all the cruisers being kept as small as possible.

I desire to thank the officers and men of the Fisheries Protection Service during the last season for the effective and trustworthy manner in which they have carried out their arduous and monotonous duties, which very often require a considerable amount of tact in their performance. Great good feeling prevails between my officers and masters of the United States fishing vessels.

SEIZURES.

Two seizures were made during the season, one the "Lawrence A Munro," U. S. fishing schooner, seized at the Magdalen Islands for the infraction of the customs laws. This vessel was taken to Gaspé, but was released on the payment of a fine of \$1,200 after a short period, and the "Lewis H. Giles," U. S. schooner, seized off Cape Egmont, east coast, Cape Breton, by Captain Knowlton, in the Dominion cruiser "Vigilant." This vessel was fishing inside the three-mile limit, the master pleaded he was not inside, but the vessel was taken to Sydney and partially dismantled; she was released on payment of a fine of \$2,500.

LICENSES FOR FOREIGN FISHING VESSELS.

SCHEDULE of United States Fishing Vessels to which Licenses were issued under the Act intituled "An Act respecting Fishing Vessels of the United States of America," during the Year 1893.

Name of Vessel.	Port of Registry.	Ton- nage.	Port of Issue.	Fee.
				\$ cts.
Arthur Binney.....	Boston, Mass.....	112	Shelburne, N.S.....	168 00
Joseph P. McGuire.....	Gloucester, Mass.....	88	Barrington, N.S.....	132 00
Electo.....	do.....	113	Pubnico, N.S.....	169 50
Monitor.....	do.....	104	do.....	156 00
Alice R. Lawson.....	do.....	115	do.....	172 50
Gatherer.....	do.....	90	do.....	135 00
Charles Levi Woodbury.....	do.....	100	do.....	150 00
Wm. E. Morrissey.....	do.....	117	do.....	175 50
Madonna.....	do.....	110	Yarmouth, N.S.....	165 00
Edgar S. Foster.....	Salem, Mass.....	94	Pubnico, N.S.....	141 00
Edward Grover.....	Gloucester, Mass.....	73	do.....	109 50
Carl W. Baxter.....	do.....	70	do.....	105 00
Margaret.....	Salem and Beverly, Mass.....	131	do.....	196 50

SCHEDULE of United States Fishing Vessels to which Licenses were issued, &c.—*Con.*

Name of Vessel.	Port of Registry.	Tonnage.	Port of Issue.	Fee.
				\$ cts.
Ada M. Hall	Gloucester, Mass.	95	Shelburne, N.S.	142 50
Josie M. Calderwood	do	86	Pubnico, N.S.	129 00
Elsie M. Smith	do	106	do	159 00
Ella G. King	do	71	Shelburne, N.S.	106 50
Sarah E. Lee	do	98	do	147 00
Hazel Oneita	do	104	do	156 00
D. D. Winchester	do	79	Halifax, N.S.	118 50
Win. E. McDonald	do	93	do	139 50
Dora A. Lawson	do	119	Pubnico, N.S.	178 50
Lucy W. Dyer	Portland, Me.	78	Yarmouth, N.S.	117 00
W. Parnell O'Hara	Marblehead, Mass.	82	Digby, N.S.	123 00
Emily P. Wright	Boston, Mass.	92	Halifax, N.S.	138 00
Frank A. Rackliff	Gloucester, Mass.	99	Yarmouth.	148 50
Hattie Maud	Portland, Me.	86	Shelburne, N.S.	129 00
Polar Wave	Gloucester, Mass.	86	Pubnico, N.S.	129 00
Emma and Ellen	do	90	Arichat, N.S.	135 00
Henry L. Phillips	Rockland, Me.	76	Canso, N.S.	114 00
Maggie E. Wells	Gloucester, Mass.	80	Port Hawkesbury, N.S.	120 00
Mary J. Wells	do	86	do	129 00
Herbert M. Rogers	do	73	Shelburne, N.S.	109 50
Mary E. Webb	do	11	Port Mulgrave, N.S.	16 50
Loring B. Haskill	Boston, Mass.	91	Liverpool, N.S.	136 50
Clara S. Cameron	Dennis Port, Mass.	99	do	148 50
Reub. L. Richardson	Gloucester, Mass.	92	Amherst, M.I.	138 00
Henry M. Stanley	do	112	do	168 00
David A. Story	do	87	do	130 50
Lizzie Griffin	do	102	Arichat, N.S.	153 00
Edith M. McInnis	do	80	Port Hood, N.S.	120 00
Flora Dilloway	do	77	North Sydney, N.S.	115 50
We're Here.	Booth Bay, Me.	53	Port Hood, N.S.	79 50
Mabel R. Bennett	Gloucester, Mass.	115	North Sydney, N.S.	172 50
Harry G. French	do	95	Canso, N.S.	142 50
May Flower	do	108	do	162 00
Eliza B. Campbell	do	95	do	142 50
Georgie Campbell	do	106	Port Hawkesbury, N.S.	159 00
J. W. Collins	do	74	Barrington, N.S.	111 00
Lottie Byrnes	Provincetown	92	St. Peter's, N.S.	138 00
Willie L. Swift	do	95	do	142 50
Lawrence A. Monroe	Gloucester, Mass.	110	Gaspé, Que.	165 00
Masonomo	do	92	Arichat, N.S.	138 00
Gertie Evelyn	do	81	do	121 50
Susan L. Hodge	do	78	Liverpool, N.S.	117 00
Annie H. Erye	do	64	Pubnico, N.S.	96 00
Winona	do	103	Arichat, N.S.	154 50
Martha C.	do	75	Canso, N.S.	112 50
Robin Hood	do	88	Arichat, N.S.	132 00
Bertha M. Miller	do	42	Pubnico, N.S.	63 00
Governor Butler	do	87	North Sydney, N.S.	130 50
Henrietta	do	75	Liverpool, N.S.	112 50
Anna L. Sanborn	Salem, Mass.	33	Pubnico, N.S.	49 50
Alena L. Young	Rockland, Me.	25	Shelburne, N.S.	37 50
David Sherman	Gloucester, Mass.	68	Port Mulgrave, N.S.	102 00
Storm King	do	35	Liverpool, N.S.	52 50
M. H. Perkins	do	72	Port Hawkesbury, N.S.	108 00
Charles H. Taylor	do	92	Georgetown, P.E.I.	138 00
Marathon	do	65	Canso, N.S.	97 50
Flash	do	69	do	103 50
J. S. Glover	Portland, Me.	54	Souris, P.E.I.	81 00
Spencer F. Baird	Gloucester, Mass.	74	Canso, N.S.	111 00
Total				9,243 00
Less— Collection of drafts				1 10
				9,241 90

SUMMARY.

Total number of vessels	72
Total tonnage	6,164
Total amount received in fees	\$ 9,241 90

Fisheries Report.

Number of licenses taken out during the last five years:—

Year.	No.	\$	cts.
1889.....	78	9,589	50
1890.....	119	14,461	50
1891.....	98	11,098	50
1892.....	108	13,410	50
1893.....	71	9,130	90

The obtainment of frozen herring from Newfoundland is one of the chief fishery industries of New England in winter.

The Newfoundland frozen herring fleet this year promises to be a large one and 64 schooners from Gloucester and elsewhere, will engage in that branch of the fisheries, in addition to these 64, more may be expected to go.

The amount of bait in the cold storage plants of New England is placed at about 13,000 barrels.

I would beg again to call attention to the difficulty vessels in the Fisheries Protection Fleet have of distinguishing United States from Canadian fishing vessels, some small distinguishing mark would be of great assistance, not having this mark gives rise on occasions to reports that U. S. vessels are fishing within the limits, which reports on investigation show that the vessels are Canadians.

THE LOBSTER FISHERY.

The vessels of the Fishery Protection Service have been very busily engaged enforcing the lobster regulations. On the south-east coast of Nova Scotia to the eastward of Halifax and certain portions of the Prince Edward Island coast, this has been attended with a great deal of trouble and hard work, and although a regulation was adopted taking away the size limit of 9 inches from Prince Edward Island and adopting instead a regulation that the two lower slats in each trap should be $1\frac{1}{2}$ inches apart, the fishermen, whenever an opportunity occurred, continued to fish during the close season which entailed considerable patrolling by the vessels, and a large destruction of traps and other lobster gear found set in the close season, on the south-east coast of Nova Scotia; one vessel was employed nearly the whole season carrying out this law. Fishermen are hardly ever caught in the act of fishing, and the factories on the beach are closed, but the canning goes on in most cases in small shanties in the woods, where it is nearly impossible to catch them in the act.

The system of branding every case with a stamp will do away with a great deal of this illegal fishing, as any one case found without the brand would be liable to seizure. Without a scheme of adequate penalties it will always be perfectly impossible to enforce the provisions for the benefit of the lobster fishery, at the present the largest fine that can be exacted is \$20 or a month's imprisonment, and this is the same if a man has 1 lobster or 100 in his possession.

The marking of trawl buoys I am under the impression would be of very little use, as these buoys are continually going adrift, and would be picked up and used by other people; besides this, in a great majority of instances during the close season no buoys are used at all, but land marks taken on shore and the traps set in line with them, which necessitates the cruisers dragging to find the traps which as can easily be surmised is a very slow business, so that this scheme would not help very much to identify people who are fishing out of season.

I would suggest that a fine be imposed for every individual lobster found in possession in close season.

The lobster catch in Prince Edward Island is slightly in excess of last year owing to 15 days more time to fish in.

THE MACKEREL FISHERY.

The mackerel appeared on the Nova Scotia coast, about the middle of May, they were followed by a small fleet of United States seiners through Scatarie to Cape

North with the Dominion cruiser "Vigilant" in company. During July and August the following schooners were boarded off the East Point of Prince Edward Island by the Dominion cruisers:—

Name of Vessel.	Tonnage.	Men.	Port of Registry.	Remarks.
Quickstep	99	16	Gloucester	In for water; clean.
H. M. Stanley	112	18	do	do do
Jennie Seaverns	106	18	do	20 barrels.
Eliza Parkhurst	115	20	do	20 do
Nathan Clevis	75	17	Portland	8 do
Martha C.	75	16	do	20 do
Mabel R. Bennett	115	17	Gloucester	Clean.
Ethel B. Jacobs	125	18	do	100 barrels.
Argo	108	18	do	20 do
Lottie Gardner	111	17	do	59 do
Orion	72	15	Georgetown	40 do
J. S. Glover	53	15	Portland	Clean.
G. F. Edmonds	141	18	Gloucester	70 barrels.
H. L. Philips	76	15	do	11 do
Christie Campbell	51	11	do	30 do
Harvard	106	17	do	Clean.
W. H. Wellington	81	17	do	do
Lizzie M. Centre	77	16	do	do
Notice	63	15	do	30 barrels
Herald of the Morning	68	17	do	70 do
J. G. Blaine	98	17	do	40 do
Emma	77	16	Portland	40 do
Marguerite Harkins	97	17	Gloucester	60 do
Norumbega	120	18	do	90 do
Herbert M. Rogers	73	16	do	Clean.
David Sherman	67	14	do	30 barrels.
Landseer	94	17	do	Clean.
Alver	97	16	do	10 barrels.
Lucille	99	17	do	50 do
Fredonia	109	17	do	40 do
Nellie M. Davis	85	15	do	80 do
Romana	82	17	do	21 do
G. W. Peice	59	16	Portland	Clean.
S. F. Maker	103	17	Gloucester	40 barrels.
Dawn	48	17	do	From Labrador with lobsters.
Senator Lodge	94	17	do	150 barrels.
Josemite	115	17	do	113 do
Hattie Worcester	112	17	do	50 do
Marie S. McKie	68	10	Charlottetown	10 do
Minnie Maud	85	17	Liverpool	10 do
Christie Campbell	51	11	Gloucester	200 do
M. H. Parkins	72	14	do	175 do

Most of these vessels did very much better before going home, the greater quantity of the fish were caught off Prince Edward Island and Cape Breton coasts; there was good fishing off the Maine coast, so the number of vessels were smaller than usual.

The last of the mackerel vessels arrived at Gloucester between the 14th and 23rd November, having left the Halifax coast a couple of days earlier; they reported a large body of mackerel as passing down along the Nova Scotia shore about the end of May, these mackerel were followed along the Cape shore in the spring as far as Cape North, when they generally leave them, as after passing that point they scatter. The first schools are unusually large fish, they are generally reported to spawn about the Magdalen Islands or North shore of the Gulf. They are seldom seen in the summer and are always found in October on their way out. They generally first see them off Cheticamp and follow them round Cape North and down along the coast of Halifax, where they leave them in the fall during the early part of Novem-

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ber. Some of the United States vessels are reported as making good fares off Cheticamp. They saw any amount of mackerel bound south, but the weather about the end of October and beginning of November was too rough to do any seining. Captain Jacobs of the "Ethel Jacobs" got his seine round a very large school off Halifax, about the 10th November, but he burst his seine and only secured about 300 barrels. These were large mackerel.

During the summer United States vessels did very little in the Gulf as the fish did not show up. Some half dozen schooners fished with the hook and line about the Magdalen Islands, they are reported as having made saving voyages. Most of the mackerel taken in the Gulf during the summer are a later school, and smaller run of fish than those taken in the early spring and late fall on the Cape shore, they come into the gulf later and go out earlier than these large fish before mentioned. The big fish all came in and go out by Cape North, while of the later schools a good many come and return through the Gut of Canso.

The spring and fall fishing was quite successful on the Cape shore and upon the shores of the United States, but the summer and North Bay fishery was practically a failure with the New England fleet. The catch of the Gloucester fleet has been about a third larger than last year and the largest for any year since 1887.

The total amount landed by the fleet from the Cape shore was 13,378 barrels, and 3,965 from the North Bay.

At the latter end of October and during November the boarding books show that the following United States vessels were off and about Sydney:—

J. E. Garland,
Sara E. Lee,
Annie Wesley,
A. R. Crillenden,
Elisha Boynton,
Ella G. King,
J. S. Glover,
Norumbega,
Josemite,
Lizzie M. Centre,
J. W. Campbell,
Cecil H. Louis,
George S. Goodwill,

Argo,
Herald of the Morning,
Lewis H. Giles,
Herbert M. Rogers,
Landsecr,
Joseph Rowe,
J. W. Campbell,
D. H. Storey,
Henrietta,
Edward Grover,
Charles,
Clara H. Friend.

Most of these vessels had fair fares.

The law as regards the setting of the gill-nets in the day time has been rescinded during the past season, from Cape St. Lawrence in Cape Breton to the United States boundary line; in the gulf the law regarding these nets is still in force and has been observed.

THE NEW STEAMER.

The new vessel being built for the Dominion Government by Messrs. Fleming & Ferguson, of Paisley, Scotland, is meant both for fisheries protection, buoy service, and lighthouse supply. She has the following dimensions: length between perpendicular 180 feet, breadth moulded 31 feet, depth of hold moulded 16 feet, and draught 12 feet. She is to be constructed throughout of Siemens-Martin ship steel, and built under special survey of Lloyd's register of British and foreign shipping, to be fitted and equipped in all respects to the requirements of the Imperial Board of Trade and Steamboat Inspection Act of Canada. She has a double bottom running the whole length, including the ballast tanks; main deck to be of steel, cased with pitch pine. Crew's quarters are arranged under the forecastle deck with space for 18 men. She has steam steering gear. Accommodation for captain and officers are arranged between decks. Hoisting gear consists of one derrick attached to foremast, with gear of sufficient strength to hoist 12 tons; one powerful steam winch.

She is wired throughout for electric light, dynamos and all necessary electrical apparatus provided, and also has a search light. The engines are quadruple expansion, designed and of sufficient power to maintain a speed of 12 knots at sea, surface condenser on the latest approved principle, tubes of the best approved make, $\frac{3}{4}$ -inch external diameter, to have two patent water tube boilers to be fired in the latest and most approved manner. Platings and stays of Siemens-Martin steel, and boiler to be of such dimensions as to supply a constant full pressure of steam at 200 pounds per square inch and to give the vessel and maintain the required speed. Her cost will be \$86,686.00.

LIST of United States Vessels which reported at the Customs Office, Port of Canso, during the Year 1893.

Date of Arrival.	Name of Vessel.	Port of Registry.	Tons.		Whence arrived.	Licensed, L.; un-licensed, U.	What in Port for.
			Tons.	Mén.			
1893.							
Jan. 4	Gertie May	Portland	96	7	Portland	U	Harbour for Newfoundland.
do	3 E. A. Perkins	Gloucester	86	14	Gloucester	U	do do
do	11 Bessie M. Wells	do	92	16	Banks	U	Harbour and water, &c.
Feb. 10	E. P. Boynton	do	76	14	Gloucester	U	do do
April 24	Carlton Belle	Booth Bay	132	10	Banks	U	do repairs.
May 5	Electer	Gloucester	115	18	do	L	Ice, bait, &c.
do	8 H. L. Philips	Rockland	76	14	do	L	License, men, &c.
do	10 Grace Davis	Portland	381	7	Boston	Reg	Cargo.
do	13 Elsie M. Smith	Gloucester	106	18	Banks	L	Anchor and sick man.
do	20 H. G. French	do	95	16	Gloucester	L	License, &c.
do	22 May Flower	do	108	18	do	L	Ice, &c.
do	24 Lottie Byrns	Provincetown	92	7	Provincetown	U	Harbour.
do	29 E. B. Campbell	Gloucester	96	14	Gloucester	L	License, bait, &c.
do	29 A. C. Herrick	Boston	94	18	Boston	U	Harbour, water, &c.
do	29 H. M. Stanley	Gloucester	112	18	Banks	U	do do
do	29 E. K. Perkhurst	do	115	17	do	U	do mackereling.
do	30 Ethel Addie	Portland	86	17	Off shore	U	do do
do	30 Miantinomah	Deer Island	73	17	do	U	do do
do	30 Emma	Portland	77	16	do	U	do do
do	30 Lizzie Maud	do	79	16	do	U	do do
do	30 Norumbega	Gloucester	120	18	do	U	do do
do	30 Alva	do	97	17	Gloucester	U	do do
June 1	J. J. Clarke	do	66	15	Off shore	U	do do
do	6 Miantinomah	Deer Island	73	17	do	U	do do
do	6 Argo	Gloucester	106	17	do	U	do do
do	10 Martha C	do	75	16	do	L	Salt and barrels.
do	12 Roger Williams	Booth Bay	56	14	do	U	Harbour, mackereling.
do	14 Iolanthe	Gloucester	70	15	do	U	do do
do	14 Nellie M. Davis	do	89	16	do	U	do do
do	14 Fredonia	do	109	18	do	U	do do
do	14 Canopus	do	68	15	do	U	do do
do	14 G. W. Pearce	Portland	59	16	do	U	do do
do	14 Pendragon	Gloucester	68	16	do	U	do do
do	14 Thos. F. Baird	do	95	16	do	U	do do
do	14 Rush Light	do	63	16	do	U	do do
do	14 A. P. Davis	do	80	16	do	U	do do
do	14 W. H. Cross	do	55	16	do	U	do do
do	14 S. F. Maker	do	103	17	do	U	do do
do	14 J. S. Presser	do	88	16	do	U	do do
do	14 M. R. Bennett	do	115	17	do	L	do do
do	15 Henrietta Francis	Portland	73	16	do	U	do do
do	15 Lilla B. Fernald	do	78	15	do	U	do do
do	15 Hereward	Gloucester	85	17	do	U	do do
do	15 H. L. Beldan	do	117	17	do	U	do do
do	22 M. E. Wells	do	80	14	Gloucester	L	Ice, bait, &c.
do	22 Mayflower	do	108	18	do	L	do do
do	27 H. L. Philips	Rockland	76	14	Banks	L	do do
do	28 Puritan	Gloucester	86	16	do	U	Harbour, provisions.

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List of United States Vessels which reported at the Customs Office, Port of Canso,
&c.—Continued.

Date of Arrivals	Name of Vessels.	Port of Registry.	Tons.		Whence Arrived.	If Licensed L, if Unlicensed U.	What in Port for.
			Tons.	Men.			
1893.							
July	1 H. G. French	Gloucester	95	16	Shelburne	L	Ice, bait, &c.
do	3 M. J. Wells	do	86	14	Gloucester	L	do
do	11 Polar Wave	do	86	16	Banks	L	Harbour and water.
do	17 Carrier Dove	do	82	16	do	U	do do
do	17 D. D. Winchester	do	79	14	do	L	do do
do	25 Hazel Ounita	do	104	18	do	L	Ice, bait, &c.
do	25 Flash	do	65	14	do	L	do
do	25 C. L. Woodbury	do	100	18	Pubnico	L	do
do	4 L. M. Stanwood	do	100	18	Gloucester	U	Harbour.
do	4 M. J. Wells	do	86	14	do	L	do
do	4 Lizzie Griffin	do	102	18	do	L	Ice, bait, &c.
do	4 Eliza B. Campbell	do	95	17	do	L	do
do	6 W. E. McDonald	do	93	16	do	L	do
do	7 Henrietta	do	75	14	do	L	do
do	10 Annie Wesley	do	88	18	do	U	Harbour.
do	15 Lucy Dyer	Portland	87	16	Portland	L	Ice, bait, &c.
do	21 Marathan	Gloucester	65	12	Whitehaven	L	Ice, bait, &c.
do	28 Mayflower	do	108	18	Gloucester	L	do
Aug.	4 Polar Wave	do	86	16	Lusket	L	Repairs, &c.
do	4 Edwin B. Holmes	do	67	11	Gloucester	U	Harbour, water.
do	7 M. J. Wells	do	86	14	do	L	Ice, bait, &c.
do	14 E. B. Campbell	do	95	18	do	L	do
do	15 W. E. McDonald	do	93	16	do	L	do
do	17 Lizzie Griffin	do	102	18	do	L	do
do	18 Louisa Polleys	do	69	14	Banks	U	Harbour, water.
do	21 Flash	do	65	14	do	L	Ice, bait, &c.
do	23 Henrietta	do	75	14	do	L	do
do	23 Senator Lodge	do	94	16	do	U	Harbour, water.
do	26 Polar Wave	do	86	16	do	L	Ice, bait, &c.
do	26 Amy Hanson	Boston	108	16	do	U	Harbour, water, &c.
do	26 M. E. Wells	Gloucester	80	14	do	L	Ice, bait, &c.
do	28 Mayflower	do	108	18	Gloucester	L	do
do	30 Louisa Polleys	do	69	14	Banks	U	Harbour, water.
do	30 Marathen	do	65	12	do	L	Ice, bait, &c.
do	30 Monitor	do	102	18	Tusket	U	Harbour, water, &c.
Sept.	18 Georgie Campbell	do	106	18	Banks	L	TranSHIP, fish.
do	18 H. M. Stanly	do	112	18	do	L	For a sail, water.
do	18 M. J. Wells	do	86	14	Gloucester	L	Ice, bait, &c.
do	18 Norumbega	do	120	18	do	U	Harbour.
do	19 Henrietta	do	75	14	Banks	L	do water, &c.
do	21 Marathan	do	65	12	do	L	Ice, bait, &c.
do	22 Eliza B. Campbell	do	95	18	Gloucester	L	do
do	27 Susan H. Ritchie	New York	513	8	New York	Reg	Cargo coal.
Oct.	2 Flash	Gloucester	65	14	Banks	L	Harbour, water.
do	13 Meteor	do	119	18	do	U	do
do	17 Emd. Juna	do	80	16	do	U	TranSHIP, halibut.
do	22 J. E. Garland	do	76	13	do	L	Harbour, water.
do	Loring B. Haskell	Boston	96	16	Gloucester	L	Men, water, &c.
do	30 Columbia	Gloucester	118	18	do	U	Harbour, water, &c.
do	30 Arbutus	do	114	18	Banks	U	do
do	30 Margaret Mathers	do	91	16	do	U	do
do	30 C. L. Woodbury	do	100	18	do	L	do
do	30 S. F. Baird	do	74	13	do	U	do
Nov.	1 Gatherer	do	91	18	do	U	do
do	6 C. F. French	do	61	12	Shelburne	U	do
do	7 Ethel B. Jacob	do	125	17	Off shore	U	Harbour, mackerel.
do	7 Margarita	Beverly	131	18	Banks	L	do water, &c.
do	7 Senator Lodge	Gloucester	94	16	Off shore	U	do mackerel.
do	8 Maud M. Story	do	71	12	Banks	U	do water, &c.
do	8 Mattie Winship	do	71	12	do	U	do do
do	8 A. Ryder	do	73	13	do	L	do do
do	11 Nellie M. Davis	do	89	16	Off shore	U	do do

List of United States Vessels which reported at the Customs Office, Port of Canso, &c.—*Concluded.*

Date of Arrivals	Name of Vessels.	Port of Registry.			Whence Arrived.	If Licensed L; Unlicensed U.	What in Port for.
			Tons.	Men.			
1893.							
Nov. 16	D. D. Winchester	Gloucester	79	16	Banks	L	Harbour, water, &c.
do 16	Carrie & Annie	Boston	90	7	Gloucester	U	do for Newfoundland.
do 18	Oliver W. Holmes	Gloucester	101	8	do	U	do do
do 18	Carrier Dove	do	82	7	do	U	do do
do 18	Greyling	do	115	8	do	U	do do
do 20	Sarah E. Lee	do	98	18	Banks	L	do man sick.
do 20	Geo. S. Boutwell	do	63	13	do	U	do water, &c.
do 27	Gatherer	do	91	7	Gloucester	U	do for Newfoundland.
do 30	H. D. Linnell	do	89	8	do	U	do do
Dec. 6	Joseph Rowe	do	127	9	do	U	do do
do 6	Lottie Gardiner	do	111	8	do	U	do do
do 6	Louisa J. Kenny	do	155	9	do	U	do do
do 8	Henrietta	do	74	14	do	L	Ice, bait, &c.
do 8	S. F. Baird	do	74	14	Banks	L	do do
do 11	Commonwealth	do	85	6	Gloucester	U	Harbour for Newfoundland.

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LIST of United States Fishing Vessels which entered at the Port of Arichat during the Season of 1893.

—	Name of Vessels.	Port of Registry.	Name of Master.	Tonnage.
1893.				
May	9 Sch. Henry L. Philips.	Rockland	Carroll.	76
do	11 do Emma and Ellen	Gloucester	McIntosh.	90
do	20 do Lizzie Griffin.	do	Griffin.	102
do	20 do Essex.	do	Thomas	111
do	20 do Flora Dilloway.	do	McNeil.	78
do	23 do Lizzie M. Stanwood	do	McInnis	100
do	26 do Lottie Byrnes.	Provincetown	Hatch	92
do	26 do Willie L. Swift.	do	Kemp	95
do	26 do Lizzie Griffin.	Gloucester	Griffin	102
June	5 do James G. Blaine	do	Campbell.	98
do	6 do Edith M. McInnis	do	McInnis	80
do	8 do Gertie Evelyn.	do	McShara.	81
do	8 do Horace B. Parker.	do	Thomas.	93
do	8 do Masconoma.	do	Porper.	92
do	12 do Winona	do	Cahoon.	103
do	14 do Addie Winthrop	do	Pool (outport of St. Peter's)	73
do	22 do Robin Hood	do	Bowie	88
do	23 do Emma and Ellen	do	McIntosh	89
July	4 do Lizzie M. Stanwood	do	McInnis	100
do	4 do Mary J. Wells	do	McKay	86
do	5 do Edith M. McInnis	do	McInnis	80
do	6 do Lizzie Griffin.	do	Griffin.	102
do	17 do Masconoma.	do	Porper.	92
do	17 do Susan L. Hodge	do	Hadman.	78
do	17 do Georgie Campbell.	do	Campbell.	106
do	18 do Winona	do	Cahoon	103
do	18 do David A. Storey	do	Grant	86
do	18 do Gertie Evelyn.	do	McShara.	81
do	24 do Robin Hood	do	Bowie	88
do	29 do Ada M. Hall	do	Dower	95
Aug.	14 do Masconomo	do	Porper.	92
do	15 do Louisa Polleys.	do	McNeil	69
do	17 do Fredonia.	do	Greenleaf	100
do	21 do Emma and Ellen	do	McIntosh	90
do	24 do Rigel.	do	Dixon	107
do	29 do Gertie Evelyn.	do	McShara.	81
Sept.	8 do Ada M. Hall	do	Dower	95
do	16 do Masconomo	do	Porper.	91
do	22 do Lottie Byrnes.	Provincetown	Hatch (outport of St. Peter's)	92
do	23 do Concord	Gloucester	Dugas	93
do	28 do Willie L. Swift.	Provincetown	Kemp (outport of St. Peter's)	95
Oct.	10 do Gertie Evelyn	Gloucester	McShara.	81
do	30 do Aroostook	do	Blackburn	67
Nov.	16 do Mildred V. Lee.	do	Lee.	132
Total.				3,995

List of United States Fishing Vessels which visited Sand Point, Shelburne County, during the Season of 1893.

Date of Arrivals.	Name of Vessel.	Port of Registry.	Tons.	Men.	What in Port for.
1893.					
Jan. 2.	Eben Parsons	Gloucester	86	15	Shelter.
do 2.	Smuggler	do	64	13	do
do 3.	Smuggler	do	64	13	do
do 3.	E. F. Willard	Portland	54	13	do second time in ; no change.
do 3.	Viking	Gloucester	62	15	do wood and water ; bound home.
do 3.	Mystic	do	78	15	do and water.
do 3.	Isaac Collins	Provincetown	93	19	do do
do 4.	Mary J. Powers	Boston	126	23	do do
do 4.	Robert I. Edwards	Gloucester	80	7	do bound home.
do 4.	Frederick Garring	do	67	7	do do
do 4.	Edith M. Prior	do	105	19	do do
do 7.	A. M. Burnham	do	60	11	do do
do 7.	Edith M. Prior	do	105	19	do do
do 7.	Viking	do	62	15	do and repairs.
do 7.	Garfield	do	69	13	do do
do 7.	Isaac Collins	Provincetown	93	19	do do
do 7.	Smuggler	Gloucester	64	13	do do
do 7.	Mary J. Powers	Boston	126	23	do do
do 7.	Mystic	Gloucester	78	15	do do
do 10.	American	do	118	19	do and water.
do 10.	Eben Parsons	do	86	15	do do
do 10.	Ramona	do	83	17	do do
do 12.	Henry L. Philips	Rockland	76	13	do do
do 12.	Blanche	Gloucester	79	18	do water, and medical aid for sick man.
do 12.	Isaac Collins	Provincetown	93	19	do 3rd time in.
do 12.	Smuggler	Gloucester	64	13	do do
do 12.	I. E. Garland	do	76	13	do do
do 13.	Resolute	do	90	15	do and water.
do 13.	Vesta	do	75	14	do do
do 13.	Penobscot	do	85	15	do wood and water.
do 13.	Arthur Binney	Boston	112	22	do and repairs.
do 18.	Lizzie B. Adams	Gloucester	58	14	No fish, bait spoiled.
do 18.	William H. Wellington	do	81	15	Shelter and water.
do 18.	Arthur Binney	Boston	112	22	do 2nd time in.
do 20.	Ramona	Gloucester	83	17	do do
do 20.	J. H. Carey	do	95	17	Repairs.
do 20.	Smuggler	do	64	13	Short of provisions.
do 21.	Arthur Binney	Boston	112	22	Shelter, 3rd time in.
do 30.	Mayflower	Gloucester	108	7	do and stores.
Feb. 1.	Arthur Binney	Boston	112	22	do do
do 2.	Golden Hope	Gloucester	101	7	do and stores.
do 4.	Arthur Binney	Boston	112	22	do 2nd time in.
do 7.	E. F. Willard	Portland	54	15	do repairs and water.
do 8.	Maggie and May	Gloucester	115	7	do and stores.
do 8.	Thos. F. Bayard	do	96	16	do do
do 8.	William H. Wellington	do	81	15	do do
do 10.	Maggie McKinzie	do	161	11	do stores and water.
do 10.	Arthur Binney	Boston	112	22	do 3rd time in.
do 11.	J. E. Garland	Gloucester	76	13	do do
do 11.	Annie C. Hale	Boston	84	17	do and repairs.
do 11.	Penobscot	Gloucester	85	15	do do
do 11.	Thos. F. Bayard	do	96	16	do 2nd time in.
do 15.	Penobscot	do	85	15	do do
do 15.	Annie C. Hall	Boston	84	17	do do
do 15.	Thos. F. Bayard	Gloucester	96	16	do 3rd do
do 15.	Norumbega	do	120	7	do repairs and stores.
do 15.	Lizzie B. Adams	do	56	13	do do
do 20.	Hiram Lowell	Gloucester	120	21	do &c.
do 20.	Arthur Binney	Boston	112	22	do do
do 21.	Penobscot	Gloucester	85	15	do 3rd time in.
do 21.	Arthur Binney	Boston	112	22	do 2nd do
do 21.	Hiram Lowell	Gloucester	120	21	do 2nd do
do 21.	Penobscot	do	85	15	do 4th do

Fisheries Report.

LIST of United States Fishing Vessels which visited Sand Point, &c.—Continued.

Date of Arrivals.	Name of Vessel.	Port of Registry.	Tons.	Men.	What in Port for.
1893.					
Feb. 23.	Arthur Binney	Boston	112	22	Shelter, 3rd time in.
do 24.	Jas. A. Garfield	Gloucester	69	13	do and repairs.
do 24.	Nellie S. Thruston	do	81	15	do
do 25.	Arthur Binney	Boston	112	22	do 4th time in.
do 25.	Hiram Lowell	Gloucester	120	21	do 3rd do
do 25.	W. H. Wellington	do	81	15	do
Mar. 1.	Penobscot	Boston	112	22	
Feb. 27.	Arthur Binney	Gloucester	85	17	
Mar. 1.	James & Ella	do	85	17	do
do 2.	do	do	85	17	do 2nd time in.
do 2.	do	do	69	13	do 3rd do
do 2.	Jas. A. Garfield	do	95	17	do 2nd do
do 3.	Thos. F. Bayard	do	95	17	do 2nd do
do 3.	James & Ella	do	85	17	do 3rd do
do 3.	Jas. A. Garfield	do	69	13	do and repairs.
do 3.	Meteor	do	119	19	do and stores.
do 3.	Ellen Lincoln	Portland	92	7	
do 6.	Jas. A. Garfield	Gloucester	69	13	Repairs.
do 11.	Lizzie M. Stanwood	do	100	18	Shelter and repairs.
do 15.	Lissie I. Greenleaf	Gloucester	88	17	do and medical aid for sick man.
do 16.	Arthur Binney	Boston	112	22	do
do 17.	Rolette	Gloucester	79	17	do
do 20.	Joseph B. McGuire	do	88	17	do
do 20.	Arthur Binney	Boston	112	22	do
do 23.	Ada M. Hall	Gloucester	95	9	Came in to take out license and ship 7 men.
do 24.	Spring Bird	do	76	13	Shelter.
do 24.	Lissie B. Campbell	do	95	17	do
do 28.	Howard Holbrook	do	92	15	do and water.
do 28.	Reub. L. Richardson	do	92	17	do
do 28.	E. F. Willard	Portland	54	13	do
do 30.	Edward Groves	Gloucester	73	14	do and to ship a man.
do 30.	Jessie M. Calderwood	do	86	11	do do part of crew.
do 30.	Sarah E. Lee	do	96	8	do license and to ship men.
do 30.	Arthur Binney	Boston	112	18	do and to ship men.
do 30.	Annie C. Hall	do	84	15	do
April 1.	Bessie M. Wells	Gloucester	92	15	do
do 1.	Wm. E. McDonald	do	93	17	do
do 1.	E. F. Willard	Portland	54	18	do 2nd time in.
do 1.	Mayflower	Gloucester	108	17	do
do 1.	Hattie E. Worcester	do	112	19	do
do 1.	Arthur Binney	Boston	112	22	do 2nd time in.
do 1.	Annie C. Hall	do	84	15	do do.
Mar. 30.	Ella G. King	Gloucester	71	13	do and for license to ship men.
April 1.	Glorianna	do	110	17	do
do 4.	Evered Pierce	do	64	13	do
do 4.	Blanche	do	80	15	do and repairs.
do 4.	American	do	118	19	do do
do 4.	Quickstep	do	109	17	do do
do 4.	Arthur Binney	Boston	112	22	do 4th time in.
do 5.	do	do	112	22	do 5th do
do 6.	Emma M. Dyer	Gloucester	77	15	do
do 6.	Evered Pierce	do	64	13	do 2nd do
do 6.	Caveara	do	59	13	do
do 6.	J. H. Cary	do	95	17	do
do 15.	Ellie M. Doughty	Portland, Me.	71	13	do
do 20.	Arthur Binney	Boston	112	22	do and repairs.
do 21.	Ramona	Gloucester	83	17	do
do 25.	Lucy W. Dyer	Portland, Me.	78	15	In for shelter and to ship two men.
do 28.	Hattie L. Vewman	Gloucester	93	13	do and repairs.
May 8.	Frank A. Ratcliff	do	99	13	do do
do 13.	Henrietta Frances	Portland, Me.	73	16	do
do 13.	Arthur Binney	Boston	112	22	do
do 13.	Helen S. Wells	Gloucester	90	15	do
do 15.	Henrietta Francis	Portland, Me.	73	15	do and water.

LIST of United States Fishing Vessels which visited Sand Point, &c.—Continued.

Date of Arrivals.	Name of Vessels.	Port of Registry.	Tons.	Men.	What in Port for.
1893.					
May 16.	Welcome.....	Gloucester....	58	12	In for shelter, wood and water.
do 18.	M. S. Ayer.....	do.....	76	15	Shelter.
do 18.	Eleazar B. Parker.....	do.....	115	17	do
do 18.	Jennie Leverus.....	do.....	106	do	and repairs.
do 19.	Thos. F. Bayard.....	do.....	95	15	do and water.
do 19.	Mabel Woolford.....	do.....	104	17	do repairs and water.
do 19.	John W. Plummer.....	Portland, Me.	95	15	do
do 19.	Ramona.....	Gloucester.....	83	15	do
do 19.	Maud B. Wetherell.....	Portland, Me.	102	15	do and water.
do 19.	Quickstep.....	Gloucester.....	99	15	do
do 20.	Hereward.....	do.....	85	16	do and water.
do 20.	Wetherell.....	Portland, Me.	102	15	do
do 20.	Grayling.....	Gloucester.....	115	17	do
do 20.	Stowell Sherman.....	Provincetown.	87	16	do
do 20.	Ambrose H. Knight.....	Gloucester.....	87	15	do
do 20.	Norumbega.....	do.....	120	17	do
do 20.	Abbie F. Morris.....	do.....	77	15	do
do 20.	Grace Furnald.....	Portland.....	76	15	do
do 21.	Andrew Burnham.....	Boston.....	86	15	do
do 21.	Agusta Harrick.....	do.....	86	15	do
do 21.	Geo. S. Edmunds.....	Gloucester.....	141	17	do
do 22.	Ethel B. Jacobs.....	do.....	125	17	do
do 22.	J. S. Glover.....	Portland, Me.	53	15	do and repairs.
do 22.	Herbert M. Rogers.....	Gloucester.....	73	15	To ship man here.
do 22.	Arthur Binney.....	Boston.....	112	22	Shelter.
do 22.	Emma.....	Portland.....	77	15	do
do 26.	Roger Williams.....	Boothsary H'b'r	53	15	do
do 26.	J. S. Glover.....	Portland.....	53	15	do
do 29.	Laura Nelson.....	Gloucester.....	85	15	do and water.
do 29.	J. S. Glover.....	Portland.....	53	15	do
June 15.	Jennie Severns.....	Gloucester.....	106	15	do and water.
do 17.	Herbert M. Rogers.....	do.....	7	15	do
do 17.	Arthur Binney.....	Boston.....	112	22	do
do 19.	Arthur Binney.....	do.....	112	22	do
do 20.	Alva.....	Gloucester.....	7	15	do
do 20.	M. S. Ayer.....	do.....	76	15	do and water.
do 20.	Hereward.....	do.....	85	16	do
do 20.	Gleasar B. Parker.....	do.....	115	17	do
do 24.	Henry G. French.....	do.....	95	15	do bait and ice.
July 8.	Masconomo.....	do.....	91	17	Seeking bait and ice.
do 8.	Alena L. Young.....	Rockland, Me.	25	8	Shelter.
do 13.	Bertha M. Miller.....	Gloucester.....	42	11	Bait, ice and water.
do 13.	Alena L. Young.....	Rockland, Me.	25	8	To buy bait and ice.
do 17.	Clara L. Friend.....	Gloucester.....	61	13	do
do 21.	Alena E. Young.....	Rockland, Me.	23	8	do bait and ice.
do 21.	Arthur Binney.....	Boston.....	112	22	do
do 21.	Herbert M. Rogers.....	Gloucester.....	73	15	do and water.
do 25.	Hattie Maud.....	Portland.....	86	17	do water and to land one of his crew.
do 27.	Alena E. Young.....	Rockland.....	23	8	do bait and ice.
do 27.	Maggie E. Wells.....	Gloucester.....	80	15	do and bait.
Aug. 3.	Alena E. Young.....	Ro kland.....	23	8	do
do 5.	Edith M. McInnis.....	Gloucester.....	80	17	do bait and ice.
do 10.	J. W. Collins.....	do.....	74	15	do do
do 11.	Gov. Butler.....	do.....	87	15	do do
do 12.	Lusie M. Calderwood.....	do.....	86	15	do do
do 19.	Winona.....	do.....	103	17	do and bait.
do 22.	Robin Hood.....	do.....	88	15	do do
do 23.	Hattie Maud.....	Portland.....	86	15	do do
do 23.	Lilian E. Vorwood.....	Gloucester.....	75	15	do
do 23.	Chas. S. Tupper.....	do.....	68	13	do
do 25.	Caviare.....	do.....	59	13	do
do 26.	J. W. Campbell.....	do.....	79	13	do and water.
Sept. 8.	Henry S. French.....	Gloucester.....	95	15	do and bait.
do 8.	Norumbega.....	do.....	120	17	do

Fisheries Report.

LIST of United States Fishing Vessels which visited Sand Point, &c.—Continued.

Date of Arrivals.	Name of Vessels.	Port of Registry.	Tons.	Men.	What in Port for.
1893.					
Sept. 8.	Alice Ramond	Rockland	65	11	Shelter.
do 8.	Hattie Maud	Portland	86	15	do bait, ice and repairs.
do 13.	Sara E. Lee	Gloucester	98	17	do and to ship two men.
do 14.	Pola Wave	do	86	15	do bait and ice.
do 26.	Magnolia	do	108	17	do and water.
do 27.	Rigel	do	107	17	do
do 27.	Caviare	do	59	13	do
do 29.	do	do	59	13	do 2nd time in.
do 30.	Rigel	do	107	17	do
do 30.	Indiana	do	116	21	do
Oct. 10.	Alva	do	97	16	do
do 12.	James & Ella	do	85	17	do
do 13.	Strange	do	82	5	do
do 24.	Hiram Lowell	Booth Bay	120	19	do
do 24.	Carrie E. Parsons	Gloucester	80	15	do
do 24.	Elzear B. Parker	do	115	19	do
do 24.	Mary Chisholm	do	66	12	do and water.
do 24.	Lelia E. Norwood	do	74	11	do
do 25.	M. B. Stetson	Provincetown	114	19	do
do 25.	Telisman	Gloucester	118	21	do
do 14.	Vesta	Gloucester	75	13	do
do 16.	Emma E. Whetherell	Boston	109	18	do
do 16.	Mary F. Chisholm	Gloucester	66	12	do and repairs.
do 16.	Ethel	do	68	11	do and water.
do 16.	Merchant	do	68	12	do do
do 16.	J. W. Campbell	do	79	15	do
do 18.	Winona	do	103	17	do and repairs.
do 21.	Lelia E. Vorwood	do	74	11	do water and to land sick man.
do 31.	Nerid	do	92	17	do
do 31.	E. F. Willard	Portland	54	14	do
do 31.	Margaret Mather	Gloucester	91	15	do
Nov. 8.	Eleazer B. Parkerest	do	115	17	do and repairs.
do 9.	American	do	118	19	do
do 9.	Amy Hamson	Boston	103	17	do
do 13.	Harel Onieta	Gloucester	104	15	do
do 15.	Ramona	do	83	17	do
do 15.	Shenandoah	do	105	17	do
do 16.	Penobscot	do	85	15	do water and repairs.
do 16.	E. F. Willard	Portland	54	13	do
do 16.	Ralph E. Eaton	Gloucester	68	12	do and repairs.
do 16.	S. P. Willard	do	121	19	do
do 16.	Agusta E. Harrick	Boston	94	7	do
do 16.	M. B. Stetson	Provincetown	114	19	do
do 17.	Mabel Kenniston	Gloucester	78	15	do
do 17.	A. T. Gifford	do	81	15	do
do 17.	Arthur Binney	Boston	112	22	do and repairs.
do 18.	Quickstep	Gloucester	99	19	do
do 18.	Ramona	do	83	17	do second time in on this trip.
do 18.	Penobscot	do	85	15	do second time in.
do 18.	A. R. Crittenden	do	81	15	do
do 18.	Roulette	Boston	79	17	do
do 18.	Wm. H. Oaks	Gloucester	67	11	do and water.
do 24.	John M. Plummer	Portland	95	15	do
do 24.	J. H. Carey	Gloucester	95	15	do
do 24.	Emma E. Whitherell	Boston	109	19	do
do 24.	Janie B. Hodgson	Gloucester	120	19	Short wood, water and provisions.
do 24.	Vigilant	do	87	17	Shelter.
do 25.	Cecl H. Low	do	75	15	do
do 25.	Elsie M. Smith	do	106	17	do
do 25.	Maud B. Wetherell	Portland	102	18	do
do 25.	Falcon	Gloucester	62	11	One of crew dead; came in to bury him.
do 23.	E. T. Willard	Portland	54	13	Shelter and water; third time in.
do 23.	Roulette	Boston	79	15	do do
do 23.	Ramona	Gloucester	83	17	do do

List of United States Fishing Vessels which visited Sand Point, &c.—Continued.

Date of Arrivals.	Name of Vessel.	Port of Registry.	Tons.	Men.	What in Port for.
1893.					
Nov. 24.	Mabel Kenniston	Gloucester	78	15	Shelter; fourth time in.
do 24.	Resolute	do	83	17	do
do 24.	Abbie Deering	do	96	17	do second time in.
do 24.	Fannie A. Spurling	do	81	15	do do
do 24.	Riegel	do	107	19	do
do 24.	Penobscot	do	85	15	
do 24.	John E. McKinzie	do	124	21	do do
do 20.	Ramona	do	83	17	do
do 20.	Quickstep	do	99	19	do
do 20.	Penobscot	do	85	15	do
do 20.	Mary J. Wells	do	86	13	do
do 21.	Abbie M. Darling	do	96	17	do
do 22.	Jhn. E. McKenzie	do	124	21	do
do 22.	Valkyria	do	132	9	do
do 23.	Mabel Kenneston	do	78	15	do
do 23.	Rigel	do	107	19	do
do 23.	Quickstep	do	99	19	do
do 18.	Rigel	do	107	19	do and repairs.
do 18.	Wm. H. Oakes	do	69	13	do and water.
do 20.	E. F. Willard	Portland	54	13	do
do 18.	Arthur Binney	Boston	112	22	Had to go to Halifax for repairs.
do 20.	T. F. Gifford	Gloucester	81	15	Shelter.
do 20.	L. P. Willard	do	121	19	do
do 20.	Mabel Kenneston	do	78	15	do
do 20.	Fannie A. Spurling	do	81	15	do
do 20.	Rigel	do	107	19	do
do 20.	Roulette	Boston	79	15	do
do 29.	J. E. Garland	Gloucester	76	13	do
do 29.	Elsie M. Smith	do	106	19	do and water.
do 29.	Abbie M. Deering	do	96	17	do
do 29.	Rigel	do	106	17	do
do 29.	Penobscot	do	85	15	do
do 30.	Orion	do	89	7	To buy lumber and repairs.
do 30.	Arbutus	do	114	9	do
do 30.	Vigilant	do	87	17	Shelter.
do 30.	Edith M. Prior	do	105	19	do
do 30.	Laura Bell	Portland	77	17	Went to Shelburne for repairs.
do 30.	Quickstep	Gloucester	99	19	
do 27.	Annie & Mary	do	68	13	Shelter and water.
do 27.	J. E. Garland	do	76	13	do do
do 28.	Abbie Deering	do	96	17	do
do 28.	Orient	do	89	15	do
do 28.	Rigel	do	106	17	do
do 28.	Elsie M. Smith	do	106	19	do
do 28.	Mystery	do	113	7	To purchase lumber.
do 28.	Davie Crocket	do	80	7	In to buy lumber.
do 28.	Alice Lawson	do	127	9	Water and to buy lumber.
do 28.	Lottie Gardner	do	115	9	To buy lumber.

Fisheries Report.

NAME of Vessels Reported at the Outport of Souris, summer 1893.

Name of Vessels.	Port of Registry.	Tonnage.
Schooner Martha C.	Gloucester, U.S.	75
do Jennie Severns	do	106
do Hattie E. Worcester	do	112
do J. S. Glover	Portland, U.S.	53
do Notice	Gloucester, U.S.	63
do Christie Campbell	do	51
do David Sherman	do	68
do Hattie M. Graham	do	133
do Emma	do	77
do Geo. F. Edmunds	do	141
do Eliza H. Parkhurst	do	115
do Nellie M. Davies	do	89
do Lottie Gardiner	do	111
do H. M. Standly	do	112
do Quickstep	do	99
do Herbert M. Rogers	do	73
do W. H. Wellington	do	81
do Landseer	do	94
do Alva	do	97
do Luciella	do	99
do Mable R. Bennet	do	115
do Ethel B. Jacobs	do	125
do Argo	do	108
do Harvard	do	106
do S. F. Maker	do	103
do Geo. W. Peirce	Portland, U.S.	59
do Senator Lodge	Gloucester, U.S.	94
do Norembega	do	120
do Lizzie M. Center	do	77
do Jas. G. Blaine	do	98
do Yosemite	do	115
do Ramona	do	83
do M. H. Perkins	do	72

PRIZES FOR MODELS.

The occurrence of disasters to fishing schooners are so numerous and frequent, it was deemed desirable that public attention should in some way be directed towards ascertaining the cause, the general opinion is that the disasters are mostly due to the faulty model on which the vessels are constructed in the endeavour to make them both fast sailing and good freight carriers. For this reason the Government offered two prizes, the first prize \$400 and the second prize \$200, for designs of vessels from 70 to 100 tons—design to be judged by a board. The Custom-house officers at Gloucester, United States, and Yarmouth, Great Britain, were written to with the request that they should forward to the department any information they were able to give with regard to the description and models of vessels which followed deep-sea fishing. The collector at Gloucester answers, that the Gloucester fishermen think a vessel of about 100 tons, length 90 feet, breadth 23 feet 6 inches, depth 11 feet 8 inches, is best adapted for a deep-sea fishing, costing, with appurtenances, when ready for sea, about \$10,000. The collector at Yarmouth, Great Britain, answers: "As regards the smacks (commonly called the life-boats of the North Sea by reason of the large number of lives annually saved by them) there has been a continual tendency in recent years to increase their size, and the average smack now runs to 60 tons or more—vessels engaged in fleeting and being absent from port for some eight weeks being somewhat larger still." From information received from these two officers, it was ascertained that the model of fishing vessel both in Great Britain and United States, is deeper than the Canadian vessel. Twenty-one United States vessels, taken as they come on the list, average 110 tons register and 12 feet 7 inches draught of water when loaded; a like number of Canadian vessels average 91 tons

register and only draw 11 feet 4 inches. Lunenburg vessels are compromise models, being an endeavour to construct a vessel which shall be both a freight carrier and a fishing vessel.

With the intention of endeavouring to obtain the best model possible, the following advertisement was inserted:

A parliamentary grant having been voted for the purpose, a first prize of \$400 and a second prize of \$200 will be given for the best half model of a fishing schooner most suitable for North Atlantic bank fishing, which could also be used in the West India trade during the winter, competition open to Canadians only, until 2 p.m., on 7th June, 1893.

In response to this, 22 models were sent to the department. The report of the judges was: "Many of the models were not accompanied by the specifications required by the department."

The judges have carefully considered the demand for safety, as well as the other requirements.

They have no hesitation in awarding to No. 14 in the collection, the first prize for design, specification and working detail, all of which are highly recommended.

While there are several of nearly equal merit among the remainder, No. 5 seems to them to be the most deserving of second prize, and they therefore so award. While it is larger than usual for the purpose intended, it has been awarded the second prize for general excellence of design.

Numbers 2, 6 and 11 deserve honourable mention, being carefully prepared, and of good design.

Numbers 7 and 13 deserve special mention as good designs for speed, yet wanting in other qualifications.

It seems that if our fishing vessels would adopt the plan of carrying a sufficient amount of ballast, securely fastened, so that it could not be readily removed, it would conduce to their safety, as many get rid of needful ballast, to make room for the fish they expect to catch, and are often caught in a gale afterwards, with serious results.

They have noticed in some of the sail plans submitted with the models a disposition to overspar many of the fishing vessels. From their personal experience and observation they are led to agree that overmasting is in too many cases responsible for the disasters that occur so often to that class of vessels. Experience has proved that many of our vessels will sail quite as fast after their sail plan has been reduced, and are much safer.

We are pleased to notice that the tendency of the builders of to-day is to increase the dead rise of their vessels, thus giving them more draft of water, and increasing their stability. The judges do not consider that they will be overstepping their duty if they commend the department for the interest manifested in securing the safety and comfort of the men who contribute so largely to the prosperity of the country, and whose calling is one of extreme danger.

Prizes awarded to—

1st Prize—Mr. Robie McLeod, Liverpool, N.S., \$400.

2nd Prize—Mr. M. I. Oliver, Digby, N.S., \$200.

Honourable mention for carefully prepared and good design:—

Mr. George Henderson, Douglastown, N.B.

Mr. J. H. Carl, St. John, N.B.

Mr. Solomon Mirash, Lunenburg, N.S.

Special mention for speed:—

Mr. George Washbourne, St. John, N.B.

Mr. N. S. Taylor, Shelburne, N.S.

FISHERIES INTELLIGENCE BUREAU.

This bureau has again proved of value in enabling fishermen to keep track of the movements of the fish, and a valuable quantity of information will be gathered in time.

Fisheries Report.

It is proposed to issue a chart showing the whereabouts of the fish at different times during the three years the Fisheries Intelligence Bureau has been in operation. This will be of great assistance to the fishermen, showing more or less exactly where fish may be expected to be met with at different periods during the season.

Mr. Hutchins, the officer in charge of the head office of the Fisheries Intelligence Bureau, at Halifax, has performed his duties in a very satisfactory manner. He reports on the movements of fish during the season. (See Appendix No. 4.)

Appended is a list of the reporters.

The whole respectfully submitted.

O. G. V. SPAIN,
Commander.

List of Reporters employed by the Fisheries Intelligence Bureau.

Residence.	Name.	Residence.	Name.
Alberton, P.E.I.	J. P. Brennan.	Mabou, C.B.	Louis McKeen.
Arichat, C.B.	R. Benoit.	Magdalen Islands	J. A. Le Bourdais.
do (west)	C. P. Le Lacheur.	Malpeque, P.E.I.	J. M. McNutt.
Bayfield, N.S.	E. G. Randall.	Margaree, C.B.	M. A. Dunn.
Beaver Harbour, N.B.	E. W. Cross.	Meat Cove, C.B.	Alex. B. McDonald.
Bloomfield, P.E.I.	John Doyle.	Musquodoboit Harbour, N.S.	Geo. Rawlings.
Campobello, N.B.	A. J. Clarke.	New Port Point, Que.	Mrs. Meunier.
Canso, N.S.	Thos. C. Cook.	North Sydney, C.B.	A. G. Hamilton.
Caraquette, N.B.	Miss Louise C. Blackhall.	Paspebiac, Que.	Miss Laura Young.
Cheticamp, C.B.	S. Aucoin.	Percé, Que.	Miss Ada Beck.
D'Escousse, C.B.	R. F. Bourke.	Petit de Grat, C.B.	P. T. Fougere.
Digby, N.S.	J. M. Viets.	Point St. Peter, Que.	Mrs. P. Bond.
Escuminac, N.B.	Mrs. H. W. Phillips.	Port Hood, C.B.	Edward D. Tremain.
Freeport, N.S.	Isaiah Thurber.	Port La Tour, N.S.	J. W. Taylor.
Gabarus, C.B.	R. McLean.	Port Medway, N.S.	E. E. Letson.
Gaspé, Que.	J. J. Annett.	Port Mulgrave, N.S.	David Murray.
Georgetown, P.E.I.	Chas. Owen.	Pubnico, N.S.	J. A. Dentrement.
Grand Manan, N.B.	E. A. Calder.	Salmon River, N.S.	J. H. Whitman.
Grand River, Que.	Miss M. A. Carberry.	Sand Point (Shelburne Co.), N.S.	R. H. Bolman.
Hawkesbury, C.B.	J. C. Bourinot.	Seven Islands, Que.	P. E. Vignault.
Ingonish, C.B.	E. B. Burke.	Shippegan, N.B.	Mrs. A. Hamon.
Isaac's Harbour, N.S.	S. R. Giffin.	South-west Point, Anticosti.	Miss Grace Pope.
L'Ardoise, C.B.	John McIsaac.	Souris, P.E.I.	
Liverpool, N.S.	J. H. Dunlop.	Spry Bay, N.S.	W. C. Henley.
Lockeport, N.S.	Geo. Stalker.	St. Ann's, C.B.	D. McAulay.
Long Point, Que.	E. S. Vibert.	St. Peter's, C.B.	D. Urquhart.
Louisburg, C.B.	P. O. Toole.	Whitehead, N.S.	C. H. Feltmate.
Lunenburg, N.S.	W. A. Zwicker.	Yarmouth, N.S.	F. S. Hatfield.

APPENDIX No. 4.

DETAILED REPORT OF THE FISHERIES INTELLIGENCE BUREAU.

MOVEMENTS OF THE FISH.

LOBSTERS.

Magdalen Islands.

SIR,—I have the honour to submit my annual report of the Fisheries Intelligence Bureau for the season of 1893.

Fishing commenced about the 1st of May, but owing to the prevalence of strong easterly winds, the catch was light until the 20th. During this period, fishermen suffered greatly from loss of traps and gear, nearly all traps in Pleasant Bay having been destroyed. From the 15th to 20th, reports from other stations indicated good catches of fair sized fish. The first week of June, the fishing was good in all sections, fish being of larger size than at same time previous year. From June 6th until the close of the season, although the catches were intermittent, the total catch for the season is estimated fair, and compares favourably with previous years.

Quebec.

Gaspé.—The catch for the season was on the average fair.

Point St. Peter.—First appearance reported 2nd May, from which time until the 21st of June the average catch was good. During the latter half of June, bait became scarce, and greatly hindered this fishery; but from 1st July to 15th, fair catches were made daily, and the total catch for the season is considered good.

Percé.—Throughout the months of May and June, the catch was on an average fair, but from 1st July to 15th, very light. Catch for season considered not as good as last year.

Grand River.—Lobsters seemed, as a rule, good during the whole month of May, although a large number of traps were reported destroyed on the 14th. During the first half of June the catch was fair, but none reported afterwards.

Newport Point.—During the first week of May lobsters were quite plentiful, but from that time until the end of June, although some excellent catches were made, the average was only fair, total catch for season being scarcely up to the previous year's.

Paspébiac.—Lobsters were taken as early as 1st May, but bad weather prevented fishing until about the 13th, when light catches were made daily until June 10th. None reported afterwards.

New Brunswick.

Caraguet.—Lobsters first appeared about 15th of May, and fair catches were made daily until the 20th, when rough weather prevented boats from going out. During the month of June the catches were fair, but irregular. Two new factories having been opened at this place the past year (making five in all), the catch is estimated as poor, although it is generally thought that the past season's catch compares favourably with that of previous years.

Miscou and Shippegan.—Lobsters appeared in small quantities about 12th May, during the remainder of which month the catch was fair. During the first two

Fisheries Report.

weeks of June, the average catch was very good, but poor remainder of season. On the whole, the season is not considered a good one; although it opened with good prospects and packers did very well, having a large quantity of herring salted for bait. The lobster fishery, however, soon slackened, and those caught were of a smaller size. There are twenty-four factories in this district, viz.: fourteen on Miscou Island, six on gulf shore off Shippegan Island, and four on the mainland. Each factory has from three to eight boats—two men in a boat, with from 250 to 300 traps per boat. The average pack, this year, of factories, on Miscou and Shippegan Islands, is estimated at about 400 cases each; while those on the mainland would not average more than 275 cases; as the lobsters did not run inside this year, until about the end of the season; when factories might have done well had the close season not arrived.

Point Escuminac.—First appearance 3rd May, from which time until the 8th the catch was very light owing to stormy weather. Between 8th and 22nd the catch was exceedingly good, after which they began to fall off daily, and up to the 15th June the catch was poor. From latter date, until the close of the season, the catch was fair; the whole season's catch being about the same as last year.

Campobello.—First appearance reported 26th May, from which date until 19th June, the average catch was fair.

Beaver Harbour.—Light catches of lobsters were made daily from 1st to 9th of May, after which they were fairly plentiful until the end of the month. During the 2nd week of June, light catches were reported daily, but none afterwards.

Grand Manan.—First appearance reported 7th May, from which date until the end of the month the average catch was fair. On 31st May, they were reported plentiful at Dark Harbour, and on the day following, were plentiful at Grand Manan, when excellent catches were made, there having been 1,200 traps in operation. Total quantity taken estimated at 300 tons.

Prince Edward Island.

Miminegash.—Light catches of lobsters were made from 1st May until the 6th, when they became more plentiful, and fair catches were made daily between Miminegash and North Point, until the 18th when they gradually increased until they were reported plentiful on the 22nd from Campbellton to Kildare, and remained so until the end of the month, when they became again scarce, and remained so until the close of the season. This year's catch compares favourably with last year's, there being about 4,660 cases packed; but taking into consideration the increased plant worked, the average per man and traps has been greatly reduced.

Alberton.—First appearance reported 9th May, from which time until the 18th, but few were taken, although on the 10th they were reported quite plentiful between Miminegash and North Cape. From 18th until 31st, the average catch was fair, when they gradually decreased on western shore and increased at stations on the eastern side. Catches throughout June at all stations were poor and irregular. None afterwards. The past season's work has been exceptionally poor and total catch reported short.

Malpeque.—Appeared first about 6th of May, and were taken in fair quantities throughout the month. On the 20th and 21st boats averaged 700, and on the 29th some boats had 1,700. During the first eight days of June, packers were exceedingly busy and had as many as they could handle; but they slackened off for three days, only to appear in greater quantities when boats averaged 1,200, and for a week taxed the factories to their utmost capacity. From June 19th to 26th the catch was light, owing to windy weather; but from that time until the close of the season the catch was fair. There are six canning factories in this district, and the total catch during the past season is considered better than usual; there being 2,500 cases packed.

Georgetown.—Lobster fishing opened about May 7th, very satisfactorily, and the catch continued good throughout May and the greater part of June; but

towards the end of June it slackened off very considerably, some of the canneries being obliged to close down before 15th. The total catch for the past season is considered in excess of 1892.

Cape Breton.

Port Hood.—Lobsters first appeared about 9th May, and during the succeeding week light catches were made daily, when they became quite plentiful and remained so until the 26th. The catches from this date until the close of the season were fair, although somewhat irregular, from 10th to 26th June. The three factories doing business in this vicinity, are reported to have done a paying business—one firm having paid out \$5,000 for lobsters during the season.

Mabou.—Appeared first about 16th May, and good catches were reported until the second of June, when the catches somewhat diminished, owing to scarcity of bait, and remained so until about the 5th of July, from which time until the close of the season the catch was good.

Margaree.—Lobsters first appeared about the 16th of May, during which month the catches were good. During the first week in June there was a falling off of about 30 per cent, and for the remainder of the season the catch was fair, although at times irregular.

Cheticamp.—Fishing commenced about 15th May, and fair catches were made daily during the month and also from 12th to 16th of June. On 21st June much damage was done to traps and nets, and from that date until the close of the season the catch was light.

Meat Cove.—No lobsters were taken at this station during the season, owing to the great scarcity of bait.

Ingonish.—The season opened comparatively early, fishing commencing about 10th May, although very poor catches were made until about the 1st of June, when they became fairly plentiful and remained so until the close of the season. The total catch for the season is considered better than for the past two years.

St. Ann's.—Lobsters appeared somewhat earlier this year, and although some good catches were made, yet the spring catch was reported a failure. The season's catch, however, has been a fairly successful one.

Louisburg.—Lobsters appeared in fair quantities, as early as 3rd May, and when traps were overhauled on the following day, boats averaged about 250, which is considered a large average for first day. About the 16th, the traps were badly damaged by heavy weather; but from 22nd until the end of the month, good catches were made, although scarcity of bait proved a great drawback. From 1st June to 9th, the catch was small, it being estimated not more than half the previous year's catch to date. From 9th June, to 7th July, the catch was fair, but for the remainder of the month very poor.

Gabarus.—First appearance reported 11th May, and light catches were obtained, and fishermen had set all gear when the heavy weather which set in about the 13th, destroyed many of the traps and resulted in great loss to the packers. On the 20th they again appeared in good quantities, and from the 23rd until the end of the month excellent catches were made daily at Fourchu. From 1st to 14th, the catch was good, and remained fair during the latter half of the month. Throughout July, when bait could be obtained, the catches were rather poor and irregular. Total catch for season about the same as last year.

L'Ardoise.—During the first week of May light catches of lobsters were made daily, when weather became unfavourable and bait scarce until about the 13th, when some excellent catches were made for about a week; and for the remainder of the month and throughout June the catch was on an average fair. During the remainder of the season the catch was light, although it is estimated that the season has been a successful one and the catch in advance of previous years.

St. Peter's.—Lobsters were on an average fair from 3rd May until 20th June, but rather poor and irregular during the remainder of the season on account of storms. On the whole the lobster fishery did not turn out as well this season as in 1892.

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Arichat.—Good catches were made during the first four days of May, when a heavy gale destroyed many traps, after which the catch was only fairly good until the 16th of June, from which date until the close of the season the catch was light. Total catch reported well up to the average, and fish were of good size throughout.

West Arichat.—Fishing commenced about 26th April and fairly good catches were made until 15th May, when they slackened to some extent, but afterwards became fair and remained so until 7th June, when the catch was estimated fully 100 per cent better than last year's to date. During the remainder of the month and up to 4th July the catch was very light; the factories closing on latter date owing to scarcity of fish. Notwithstanding the shortness of the season the fishermen did fairly well; the catch being nearly 50 per cent better than last year, and the fish of a good medium size.

D'Escousse.—The lobster catch for the whole season was reported fully up to the previous year.

Petite de Grat.—First report received 1st May indicated lobsters fairly plentiful. From that date to 10th of June the catch was good; when they slackened off. Extension of fishing period was granted to 30th of July, owing to late spring. A very stormy period from 10th to 20th of May destroyed many traps. The total catch has been fair.

Hawkesbury and Judique.—First appearance about 13th May, from which time until about 23rd May the catches were fair, but irregular. On the whole reports show that the Cape Breton lobster catch has been one of the most successful the fishermen and packers have experienced for years.

Nova Scotia.

Bayfield.—Lobsters first appeared on 16th May and during that month the average was fair; but for the remainder of season the catch was light, especially in the third week of June, when heavy north winds drove a number of traps a-hore and greatly hindered fishing. It is said that about one-half of the lobsters now canned, in this district, are under the size required by law; and if such law was rigidly enforced the factories would all have to shut down.

Canso.—From the first appearance on 4th May, until 27th June, the average catch, although irregular at times, was fair.

Whitehead.—Fishing commenced about 5th May, but the catches throughout that month and first half of June were very light, owing chiefly to rough weather and scarcity of bait. In the third week of June fishing was fairly good, but none reported afterwards.

Issac's Harbour.—Although fishing did not commence until 15th May, owing to scarcity of fish, it is estimated the total catch for season will be about the same as last year's.

Spry Bay.—First reported about 30th May, when light catches were made. Throughout June the average catch, although somewhat irregular, was good.

Salmon River.—Lobsters first appeared about 4th May, but the catches were poor throughout that month, although the average was somewhat better in June. Total catch estimated about 20 per cent better than 1892.

Musquodoboit Harbour.—First appearance reported 1st May, but few were taken until the 11th, when they became fair, (fishermen averaging \$2.25 per hundred) and remained so until 1st June, when they increased until the 12th, about which time the catches were reported excellent for two weeks. After this the catch was poor.

Lunenburg.—First report received 1st May, indicated fair fishing from which time, until the close of the season the average catch was fair.

Port Medway.—First appearance about 2nd May, during which month and up to 7th June, the average catch was fair, although great loss of traps was experienced about the 3rd week of May, owing to rough weather. From 7th June, until the end of the month the catch was poor.

Liverpool.—Reports received indicated fair catches during first and third weeks, of May and throughout June, although irregular in the latter month.

Lockeport.—Appeared in fairly good quantities 2nd May, and for about a fortnight the catch exceeded that of previous spring; after which time, although taken in fair quantities, were very irregular. Throughout June, the average catch was very fair. It is reported that the total catch for past season has been good, and fish of larger size than usual. The exportation of live lobsters has become quite an industry in this section, the past two years. During the past season 195,000 lobsters were shipped fresh to the United States market, and 30,000 lobsters canned.

Port Latour.—First appearance reported 2nd May, and fair catches were made until the 4th, when many traps were destroyed by gale of that date. After repairs to traps this fishery was vigorously prosecuted, and fishermen found ready sale and aggregated good prices, although the catch was light until latter part of June, when dogfish struck in and fishing ended. The total catch for season is reported about equal to that of last year's, but, as prices ruled higher, the result was more profitable for the fishermen.

Pubnico.—First appearance noted 15th May, during the remainder of which month and first week of June the catch was fair; remainder of season poor. The season's catch is estimated fair.

Yarmouth.—Lobsters, as far as reported, were good during May and first week of June, the trade between Yarmouth and Boston being unusually brisk about 19th May; during the remainder of June, the average catch was fair. During the past season, 36,552 crates, or barrels of live lobsters, valued at \$230,127, have been exported to the United States from Yarmouth. These fish have been smacked from various fishing localities between Yarmouth and Liverpool.

Digby.—Throughout the month of May, the average catch of lobsters was fair, although they were reported late in entering the bay, and traps had not been set above Port Lorne previous to the 17th. From 1st June to 23rd, the catch was good, but few were taken after. The total quantity caught being estimated at 1,821 barrels—100 lobsters to a barrel.

Reports from stations on Bay of Fundy coast say that Nova Scotia lobsters are considered superior in flavour to those caught on the muddy bottom of their own fishing grounds. During the past season, about fifty-four cargoes of live lobsters have been landed at St. John from Nova Scotia, comprising about 393,332 lobsters. Many of these have gone to the canneries along the coast, and others have supplied the retail trade.

HADDOCK.

New Brunswick.

Grand Manan.—The catch of haddock throughout May, June and July, was on an average good, although very irregular in July. About 7th August, they appeared quite plentiful in North Channel, and some good catches were obtained. During same time the fishery was greatly hindered in Long Island Bay, by the prevalence of dogfish. In the first week of September, very fair catches were reported daily, but afterwards became poor and irregular at all stations. Total catch estimated about 1,000 quintals.

Beaver Harbour.—About 29th May, haddock began to strike inshore, but the catches were light until about 6th October, when they became fairly plentiful and remained so until about 7th November.

Campobello.—During latter week of May and throughout June, the average catch was fair.

Nova Scotia.

Digby and Freeport.—The canning of lobsters in this district is being largely replaced by the canning of haddock, which appears to be a much more profitable business. Several of these factories have been put in operation during the past few years, and are meeting with good results. These factories give employment to 40

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or 50 men and put up in the vicinity of 250,000 cans annually. The fish are taken in the Bay of Fundy and on Brown's bank, and during the past season the catch has been fairly good. The catch at Freeport being estimated at about 4,000 quintals, and at Digby 581,929 pounds. In addition to this extensive canning business a growing and important market is found in the upper provinces for this fish, there having been in the vicinity of 75,000 fresh haddock exported, viz., St. John, during the past season.

Yarmouth.—During the month of May the catch of haddock was poor and irregular; but throughout June was a fair average.

Pubnico.—Estimated total catch for the season has been below the average, owing chiefly to the scarcity of bait.

Port La Tour.—Very few taken during the season.

Sand Point.—The inshore haddock fishery has been very poor during the past season and fish very small; the total catch being estimated about one-third of previous years; and is to some extent attributed to the great number of trawls constantly set offshore, thus preventing the schools of this fish being in shore as in years past. Although the inshore catch has been a comparative failure, good fishing was obtained on offshore soundings, LaHave and Roseway banks, during the whole season. It is reported that a large number of American fishermen frequent these grounds and during the past season averaged in the vicinity of 300,000 pounds haddock and cod weekly.

Lockeport.—The catch of haddock for the whole season has not been as good as last year, owing to the fact that they did not approach in such large quantities as in former years. Total catch estimated at about 650 quintals, or about half of last season's catch.

Port Medway.—Owing to scarcity of bait the season's catch has been exceedingly poor as far as reported.

Lunenburg.—This fish appeared quite plentifully about 17th June and fair catches were made until about 20th July when bait and fish became scarce. Catch not considered as good as last year.

Musquodoboit.—During the 3rd week of June some excellent hauls were reported, but afterwards they became poor and remained so until the middle of July, when the catches, although very irregular, were fairly good.

Isaac's Harbour.—Owing to the very low prices obtained by fishermen for this fish, the fishery was not prosecuted to any extent—consequently few were caught.

Whitehead.—During the second week of June fair catches were made daily; after which the fishery became poor and irregular. Total catch estimated about 1,000 quintals.

Canso.—Very little was done at this fishery until the first week of November, when the average catch was fair. None reported afterwards.

Cape Breton.

West Arichat.—The total catch of haddock will about reach an average with former years.

Arichat.—Haddock were very late in striking in, and the quantity caught was rather small.

Petite de Grat.—Light catches were made during the latter part of May, the 31st of which month proved very encouraging, there being a catch of 1,000. Throughout June, although some excellent hauls were made, the average was only fair. Total catch estimated about 1,500 quintals.

L'Ardoise.—Total catch for season estimate far below that of former years.

Louisburg.—Catch of haddock during past season very poor, average catch per boat not exceeding 35 quintals. Fish being reported of a very small run.

Margaree.—From latter part of June until second week of October, the catch was poor and irregular. On 16th October, haddock were reported plentiful on grounds, but heavy weather prevented fishing.

Mabou.—Light catches reported during latter part of June and throughout July, when the catches slightly increased until about the 11th, after which none were reported.

Port Hood.—Previous to 15th September, the catches were very light, but after that date they became more plentiful, but only fair fishing was done, owing to the heavy schools of dogfish, which infested the coast and did great damage to trawls. About the second week in October the dogfish began to leave, after which fishing became good.

Prince Edward Island.

The only station on the island at which any catches worthy of note were reported during the season was Miminegash, where the total catch compares favourably with last year's, although this fishery is not prosecuted to any extent along this part of the coast.

HAKE.

New Brunswick.

Beaver Harbour.—Good catches were made daily from about the 17th June until 7th July, when they became quite plentiful, and some very good fishing was done until the end of the month. During August, September, October and first week of November, although somewhat irregular, the average catch was good.

Grand Manan.—Small catches were made regularly during last week in May, but averaged fair throughout June. During July some very good fishing was accomplished, especially in the 2nd week, when boats were reported to average 14 quintals. About 8th August, dogfish became very troublesome, but notwithstanding this hinderance, although fishing was irregular, some good catches were taken in North Channel and Long Island Bay. Good fishing was reported throughout September at North Head, and some excellent hauls made at Duck Island and Long Island. October proved much the same as August. On the whole this fishery has been quite successful, and compares favourably with last season's good work. Total catch estimated about 7,000 quintals.

Campobello.—The catch for the whole season is considered very good.

Nova Scotia.

Freeport.—Total catch estimated about 6,000 quintals. Greatly in excess of 1892.

Digby.—Light catches were made during last week of May, but averaged fair throughout June and good throughout July. From 1st August to 26th, the catches, although irregular, averaged fair, when fishing was prevented by bad weather. Good fishing was reported during September, when the fishing again became fair and irregular, and remained so until about 1st October, when light catches were made daily for about two weeks. Total catch for season estimated about 589,690 pounds.

Lockeport.—While hake were seemingly as plentiful as usual, yet the total catch was below that of last year's; fishermen not devoting themselves particularly to this fishery, as prices ruled low. Total catch for season, by bankers and small crafts being estimated about 700 quintals.

Sand Point.—Good offshore during the season—about 700 quintals being landed by small crafts.

Cape Breton.

St. Ann's.—Fair catches reported quite regularly between 20th October and 9th November.

Margaree.—Appeared quite plentiful during the greater part of the season; but owing to the presence of dogfish and scarcity of bait the catch was small.

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Port Hood.—Reported scarce during summer but became more plentiful about 15th September, about which time heavy schools of dogfish appeared, driving fish offshore and destroying nets. During 2nd week of October dogfish began to leave, and from that time until the close of season the catch was good.

Mabou.—Hake were reported very plentiful during the month of October, but the weather became so unfavourable that very few were taken.

Prince Edward Island.

Alberton and Miminegash.—Although this fishery is not prosecuted to any great extent in these districts, the average catch is considered fairly good.

Georgetown.—Hake were very scarce during the past season, the total catch having been the smallest for some years past.

SQUID.

Nova Scotia.

As in former years, the only station in Nova Scotia at which any quantities of squid worth mentioning was Canso; although large quantities were taken at Salmon River on 21st July, and were reported plentiful off Beaver Harbour, during the latter week of October. Total catch at Salmon River estimated about 10 per cent in advance of last season. About 4th September they became quite plentiful in Freeport district, and as a result good fishing was accomplished. Bankers arriving at Lunenburg about the same time reported squid quite plentiful on Puerro Banks. At Canso their first appearance was noted about 24th June, and good catches were made during the succeeding two weeks. About 10th July they became quite plentiful on the coast and the large fleet, then awaiting at Canso, obtained fair supplies, although the catches were very irregular. During the 3rd week of August they disappeared, and no catches were reported until 28th October, when they struck in great abundance, the supply becoming greater than the demand.

Cape Breton.

Arichat.—Fair from 12th September until end of month.

Petite de Grat.—Small quantities were taken throughout July, and first week in August, but none reported afterwards until 2nd September, when the catch became good; remaining so until end of October, after which the catches were light.

Gabarus.—About 21st June large quantities of small squid were landed here, but after that date none were taken until October, when some very good catches were made between the 13th and 15th.

Louisburg.—Squid failed to appear this year in as good quantities as last season; boats only obtaining enough for bait on 3rd August. About 13th October they struck in quite plentiful, and some excellent catches were made for about a week.

St. Ann's.—Reported plentiful 19th July, from which date until the 28th fair supplies were taken daily. After this the catch was very light.

Ingonish.—Squid being the chief bait used in this district, were, on an average, exceptionally plentiful during September, October and November, although light and irregular catches were made from 17th July to latter part of August.

Cheticamp.—Exceedingly scarce until 16th October, when they appeared very plentifully; excellent catches being made daily the remainder of month, none afterwards.

Margaree.—Fairly good catches were made about 18th July, but afterwards the catch was very poor.

Port Hood.—With the exception of some good catches made during the last week of July, squid were, as a rule, very scarce until September, when they became quite plentiful, remaining so until end of October.

New Brunswick.

Grand Manan.—Good catches were reported during the 3rd week of August at Flagg's Cove. They again appeared about 1st September in larger quantities and very good catches were made each day for about a week. None afterwards.

Beaver Harbour.—As far as reported squid failed to appear during past season; and herring, of which there was a good supply, met the requirements.

Caraquet.—None reported until latter part of season, when they appeared plentiful.

Anticosti.

South-west Point.—The only report of squid from this district was about 1st week of August, when light catches were made daily. At English Bay they appeared plentiful about 20th October, but none afterwards.

Quebec.

Paspebiac.—Light catches reported during August, and fair throughout September.

Newport Point.—The average catch for the season has been fair, although some excellent catches were made during first weeks of August and October, and third week of September.

Grand River.—An average catch during August, September and October.

Percé.—Good appearance reported 25th July, but on the average the catch was only fair.

Point St. Peter.—Average catch fair from 25th July until end of August. From 18th September until 7th October, they were reported very plentiful, after which time but few were taken.

Seven Islands.—In this district, although very irregular, the average catch was good during second week of August. None reported afterwards.

LAUNCE.

Quebec.

Paspebiac.—Light catches were obtained during the second and third weeks of August. None afterwards.

Seven Islands.—Launce appeared as early as 26th May, during the remainder of which month the catches were good. From 1st July until 12th, the catch was excellent; they then became fair, and on an average good during the remainder of month. Throughout August and September, the catch was very irregular, although at times good.

Long Point.—During the first week of June and first few weeks of July, good catches were made daily, after which time the fishing, although good, was irregular.

Sheldrake.—The catch of launce, although very irregular, was very good throughout June. On 20th July, they were reported very plentiful, between this station and Esquimaux Point, and continued so until the end of August.

Thunder River.—During the last two weeks of July and first week of September, the catches were good, some excellent catches being reported from 20th to 27th July.

Magpie, Moisie and Ste. Marguerite.—The catches of launce at these stations, although very irregular, were fairly good, there being some excellent catches reported at Moisie during the last week of July.

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SALMON.

Nova Scotia.

Hall's Harbour.—From an unofficial source, the following information has been obtained in regard to this fishery, at Hall's Harbour. Salmon fishing at Hall's Harbour, during the past few days, has been the best ever known. Some remarkable fine catches have been made. Last Friday, Thorpe & Huntley, took 152 fish; Bolser & Keizer took 75 fish, one of which weighed 42½ pounds. On Sunday, 91 fine large fish were taken in James Houghton's weir in two tides; J. W. Thorpe took 301; Bennett & Sullivan took 96 salmon on Saturday, and 117 on Sunday. Last Saturday, Bolsor & Keizer shipped from Kentville, in ice, for Boston, 1,075 pounds of salmon. In all, about 2,800 pounds of fresh salmon were shipped from Kentville to Boston on Saturday. The total catch on Sunday and Monday aggregated five tons.

Yarmouth.—Light catches were made daily during the first part of May, and varied from fair to poor throughout June.

Sand Point.—From 25th May until 17th June, the average catch was fair and is reported a much better season than for the past five years. It is generally reported that this fishery is improving yearly.

Lockeport.—Light catches latter end of May and throughout June. About 75 fish were taken at West Head during these months in nets and were sold fresh for local use.

Liverpool.—Fair but irregular catches were made during the former part of June.

Port Medway.—Owing to the backward season and rough weather, the spring catch did not come up to that of 1892; but from about the 19th May to 8th of June the average catch was fair.

LaHave.—Salmon were reported more plentiful in LaHave River this year than for many years past, there being good catches repeatedly made.

Isaac's Harbour.—Some light catches reported in June.

Whitehead.—Catch for season estimated about 5 barrels.

Canso.—Very few taken during the season.

Bayfield.—The past season, has been on an average, fair, there being some very good catches made in latter part of June.

Cape Breton.

St. Peter's and Petite de Grat.—Fair catches throughout June.

Ingonish.—The catch of salmon throughout June is considered better than last year. In July there was a falling off in this fishery and it finally closed about the 22nd.

St. Ann's.—Fair catches during first part of July.

Cheticamp.—Fair throughout June, but poor from 1st to 12th July.

Margaree.—Catches varied from fair to good throughout June, and former half of July. Total catch estimated about 20 per cent larger than last year's.

Mabou.—Light catches were made pretty regularly throughout June, and fair in July, the average catch being slightly in excess of last season.

New Brunswick.

Escuminac.—The past season has been a much better one than last; there being good catches made daily from 29th May, to 15th June, and exported in ice to foreign markets. About 16th June they became very plentiful, and remained so until the 3rd July, when excellent catches were made and placed in freezers for winter shipment. From this date until 27th July, when fishing closed, the average catch was fair.

Shippegan.—Average catch for season good.

Quebec.

Gaspe.—Light catches were made daily during last week of May, after which the average catch was fair until 10th July.

Seven Islands.—The season's catch is estimated about half that of last year, although some very good catches were made during the first ten days of June. Fair catches were reported irregular during June, and former half of July, at Long Point, St. John's River, Mingan, Moisie and St. Marguerite.

Anticosti.—The only reports received of salmon being taken on the Island of Anticosti, during this season were on the 7th and 8th July, when fair catches were made at Shallop Creek.

HALIBUT.

Nova Scotia.

Digby.—The average catch throughout May and June was fair, there having been a total catch of about 9,000 pounds.

Yarmouth.—Fair catches were made daily throughout May and the first half of June, after which the catches were light. About 24th August, they were reported quite plentiful south-east of Cape Sable, but owing to rough weather and scarcity of bait, no catches were made. It is reported that about all the halibut caught in this district, is in vicinity of Cape Sable, the catches being landed at Cape Island, where they were iced, boxed and shipped through Yarmouth to Boston, where they meet with ready sale.

Lockeport.—All through the fishing season, this fish was found in good quantities on the inshore grounds and banks; the total catch being roughly estimated not less than 40,000 pounds, which were sold to local dealers, by the fishermen, none being exported.

Sand Point.—The average catch from 15th May to 10th June was fair, although none were reported afterwards until about the first week in August, when reports indicated good catches on offshore grounds, LaHave and Roseway banks. During 2nd week of September, good catches were made on eastern part LaHave bank in deep water, and were also reported fair in same locality during last week of November.

Musquodoboit Harbour.—Light catches were made daily from 1st to 13th September, when halibut became fair, but fishing was prevented by stormy weather.

Isaac's Harbour.—Very scarce throughout the season.

New Brunswick.

Grand Manan.—The total catch of halibut will not exceed 10 tons, as this branch of the fishing industry is not pursued here to any great extent.

Escumanic.—The catch of halibut for the whole season has been very poor.

HERRING.

Anticosti.

English Bay.—During the first half of June, good catches were made daily and were reported in great abundance in this vicinity about the first week. Throughout the latter half of June and months of July and August, very few were taken, excepting from 17th to 20th July, when the catches were good. None afterwards.

Fox Bay.—On 29th May, herring struck in off the east end of the Island, and on the 31st, in great abundance at Fox Bay; where they remained until about 3rd June, when they left. They struck in again on the 10th June, and good catches were made daily, when weather permitted, until about the 23rd, when they finally left.

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South-west Point.—Few light catches were made during the last week of June, but fair from 12th to 27th July. Good the first week of August, but poor the latter.

Magdalen Islands.

Herring struck in the latter part of April and remained plentiful until about the end of May, during which time some very good catches were made.

Quebec.

Point St. Peter.—The catch of herring, when weather permitted, was good throughout May and first week of June; fair, second week, but poor the remainder. During the first week of July, the catch was good, some boats having seven barrels per night, and thereafter was, on an average, good until 12th August.

Percé.—Herring appeared about 1st May and during the first half of month the average catch was good, but only fair latter half. Good catches were made the 1st week of June, but poor remainder of month. From 9th to end of July very good catches were reported; but during the first week of August, and from 11th to 30th September, the catches were light. Few fair catches were made the first week of October, and few light catches the first week of November.

Grand River.—For the first four days of May, good catches were reported; but for the remainder of the month and first few days of June the catch was fair. From 9th to 13th June the catch was light, but for the remainder of the month and throughout June and July, and for three or four days in August good fishing was reported. Owing to bad weather in October, the only catches made were from the 20th to 24th, when good hauls were made daily; also few good catches the first week of November.

Newport Point.—The average catch of herring from 1st to 17th May was good; but for the remainder of the month and throughout June and July the catch was only fair. No reports of fish taken were received from August to November, when the appearance was good, but fishing prevented by bad weather. Estimated total catch for season, including bait, about 7,000 barrels.

Paspébiac.—Good catches were made throughout May, but poor from 1st June to 1st November, from which time until 14th November some good catches were reported.

New Brunswick.

Caraquet.—Fair catches of herring were made from 1st to 19th May, after which date none were reported until about 20th June, when light catches were made daily for about a week. From 12th to 17th July the catch was fair, and from 19th October, to end of month very good catches of small herring reported daily. The catch of fall herring is reported good, and considered better than for the past two years.

Shippegan.—The catch of herring from 12th to end of May is good; but none taken afterwards until 4th August, when light catches were reported for a few days. The total catch of spring herring is considered good, while the fall catch has been almost a failure.

Escuminac.—Good catches were reported during May, with the exception of a few days, when fishing was prevented by bad weather. From 15th to 20th September, few light catches were reported. On the whole the catch of herring at Escuminac, compares favourably with former years.

Grand Manan.—Struck in 7th May, and fair catches were made to the 13th, when fishing was prevented by stormy weather. From 3rd to 13th June, fair catches were made on Ripplings, after which they were reported plentiful, and good hauls of large and fat fish were made for about five days. After this the catch was fair until the 11th, when large net herring were taken in numerous quantities; but the catches during the latter half of July were rather poor, owing to strong tides. On 31st July and 1st August, fair fishing was reported at Indian Beach, boats averaging one barrel large herring. On 9th August, Whale Cove boats were reported

with one barrel each, and on the following day averaged two barrels. Herring again plentiful on Rippings about 12th August, and during the succeeding five days remained in abundance, although no hauls were reported. On the 16th, they became good at Northern and Southern Heads, increasing to very good on the 19th. After a short stormy period they became good at Long Island, where it is reported that 500 barrels, of mixed herring were taken in the weirs, one half of which were suitable for smoking and the balance used for sardines. On 31st August, fair fishing was reported at Bradford's Cove, fair at Dark Harbour, on 1st September, and good at Flagg's Cove on the 2nd. During the four following days they became quite plentiful at Dark Harbour, Flagg's Cove, Two Islands, Long Island and Bancroft Point, varying from good to very good, during remainder of the month. About 4th October, fair catches were made at Cheney's Passage, but good at White Head, Two and Three Islands. Between the 10th and 13th, they became plentiful at Pond Point, and mouth of Grand Harbour, and were reported to be of large size and fine quality. On the 16th they also became plentiful at Long Island and Bancroft Point, and on the 23rd struck in plentifully at Whitehead. During the two following days, stormy weather prevented fishing, but on the 26th good fishing was reported at Big Duck Island, from which date until the close of the season, the average catch was fair. On the whole, the total product of the herring fishery is somewhat below the average, especially in the smoked fish line, and may be summed up as follows:—Pickled herring 3,000 barrels, fresh herring 7,000, the latter including sardines, being entirely for export, and smoked herring 900,000 boxes, or about 40 per cent less than last year's catch. This shortage may be partially accounted for by the exportation of fresh herring previously mentioned.

Beaver Harbour.—Herring struck in about 30th May, and few small catches reported. On 25th July, large herring struck in at Wolf Head, and light catches were made until 12th August, when they became fairly plentiful and fair hauls of large fish were made daily during the remainder of the month. During the second week of September, light catches were reported daily, and from the 21st to 19th October, some excellent hauls were made, fish being of large size.

Prince Edward Island.

Miminegash.—The catch of spring herring was fair. None reported afterwards.

Alberton.—Herring appeared about 5th May in fair quantities, from Alberton to North Cape, and about 9th May became good at all stations between Alberton and Miminegash, there having been very good catches made from 9th to 16th May, and first three days of June, when this fishery was abandoned, as the market was glutted and fishermen could not sell their catches.

Tignish and Bloomfield.—About the same as Alberton.

Malpeque.—Fishing commenced on 20th May, and about 2,000 barrels were taken for home consumption and bait. It is reported that no herring are exported from this station; a much larger quantity could be taken if markets were available.

Georgetown.—Herring appeared as early as 14th April, but no catches were reported until May, when they became very abundant, and remained so throughout the month, the total catch being considered the largest for several years past. On 1st August, herring struck in off Pictou Island, and on 9th September, good catches were made off Panmure Island, and very large schools of small herring were reported off Cape George.

Cape Breton.

Port Hood.—Herring struck in about 9th May, from which date until the end of June, the average catch was fair. Throughout July the catch was poor, and but few taken in September and October, owing to bad weather.

Mabou.—Light catches were made from 17th May to second week of July; the supply being reported sufficient only to meet the requirements for bait.

Margaree.—The catches throughout May, June and July, were light, and the fishery reported quite a failure.

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Cheticamp.—Fair catches of herring were made from 17th to 23rd May. Nothing afterwards.

Meat Cove.—The total catch of herring for the past season is far below the average, there having been only fair catches made during the first two weeks of July. Fishermen attribute this failure to the purse seiners which they say break up the schools.

Ingonish.—Herring appeared about 20th May, and few light catches were made during the remainder of that month and first and last few days of June. It is reported that the usual school of fat July herring, which generally visited the bays, failed to appear this year, and it is thought that the lobster fishery, so extensively carried on now, frightens this school of fish out of the bays and they pass outside on deep water.

St. Ann's.—Fishing commenced about 11th May and until 26th May the catch was fair. From 1st to 21st July, although some good catches were made, the catch only averaged fair.

North Sydney.—Throughout May the fishery was good, but very few were taken in June, excepting on the 28th, when some excellent catches were made.

Louisburg.—The catch for the past season has been exceptionally light, owing to stormy weather and the prevalence of dogfish, which literally swarmed on the coast. The only catches made were from 8th to 19th June, last week of July, and first week of August, and these were kept for local use.

Gabarus.—Light catches of herring were made from 10th to last of June. Few were taken during the latter part of July, and from 11th to 16th August. The total catch is considered about the same as last year, but the fish were of small size, and were taken in deep water, none appearing in the bay as in former years.

L'Ardoise.—The catches of herring were reported light from 9th June to end of August and from 14th to 25th September, when heavy weather prevented fishing, and no catches were made until 8th November, when fair catches were made daily until the 12th. On the whole, the catches reported far below that of previous season.

St. Peter's.—During the month of May, herring were netted in great abundance in Bras d'Or Lake, and quite a number of bankers were baited; but the only catches at St. Peter's, worthy of note, were made during the month of June, when fair catches were obtained daily. On 8th November a large run of large fat herring struck inshore from Three Island Cove, and extended to Point Michear; and during that week a large quantity was taken. The total catch for the past season was considered a total failure, and is attributed to the large number of steamers plying inwards and outwards daily, *via* St. Peter's Canal.

Arichat.—The catch of spring herring was light, and consequently the fishermen did little or nothing in selling bait to bankers. There is, however, less importance attached to the spring, than to the summer fat herring; the catch of which was, this year, much below the average; the only catches worthy of note being from 16th to 23rd September, when very good catches of large herring were reported.

West Arichat.—Herring were first reported about the 1st of June, but the catch was an unusually small one—*i. e.*, men who usually caught from thirty to forty barrels, barely caught a dozen this year. The failure of this fishery has been a sad drawback to the fishermen, many of them are extensively fitted out, as the herring in the bay, being of a prime quality, command a good price and sell readily for cash.

D'Escousse.—The herring fishery commenced about the 1st June, and for the following ten days the catches were light; but about the 26th, fair catches were reported daily, until end of month. During the first half of July, good catches were reported, but none afterwards. The total catch has been about 300 barrels, and is considered fairly good.

Petite de Grat.—Fishing commenced about the 10th June, but the catches throughout the season were light; although fishermen obtained some good catches in deep water. Total catch estimated about 750 barrels.

Nova Scotia.

Bayfield.—Average catch for the season.

Canso.—Herring appeared about the 30th of May, but no catches were reported until the 1st of June, when the catches were light for former half, and fair latter half of month. Throughout July, the average catch was fair, and few light catches were made in August, after which fishing was prevented by stormy weather.

Whitehead.—First catch reported the 8th June, from which date until about the middle of August, light catches were made daily. None taken remainder of the season, owing to stormy weather. Total catch estimated about 850 barrels.

Isaac's Harbour.—The catch for the season has been poor; there having been only from 10 to 20 barrels of fat July herring taken per man. The schools of fall herring did not strike in as formerly, and the total catch in this district, it is reported, will not exceed 25 barrels. The fish were of good quality, and as they were well cured, are giving good satisfaction to buyers. It is reported that fishing in this district is decreasing each year, owing to the fact that fishermen prefer working in the gold mines, and as a consequence, more attention is given to this fishing industry by fishermen of Drum Head, Seal Harbour, Coddles Harbour, New Harbour, Island Harbour and Fishermens' Harbour, all of which are within a radius of six miles of Isaac's Harbour.

Salmon River.—Total catch about 10 per cent better than previous year.

Spry Bay.—Herring appeared about 3rd June, and fair catches were made throughout the month. None reported afterwards.

Musquodoboit Harbour.—Fishing commenced about 15th of June, and a few light catches were made during the remainder of the month. Throughout July the catch averaged fair, but again fell to poor during first half of August, and none were taken until September, when good catches were reported daily until the middle of the month.

Lunenburg.—Herring appeared about 30th May, and throughout the month of June the catches varied from fair to good. About 30th June, five schools of herring were reported striking in at Prospect and St. Margaret's Bay. From 1st to 29th of July the catch was fair, when the summer school struck in and were taken in fair quantities for about a week, after which some excellent hauls were made until bad weather prevented fishing. The catches taken during former part of month were reported to be of large size and excellent quality. From 1st to 23rd of September the catch was fair. None reported afterwards owing to stormy weather.

Port Medway.—Herring appeared about 28th June, and during the remainder of the month were taken in fair quantities; none being reported afterwards until 20th July, when they were reported to have struck in at Eagle Head. From 6th to 11th June, good catches were made daily, but afterwards, with the exception of a few light hauls in former part of September, none were reported.

Liverpool.—A few herring appeared about 24th May, when a small catch was made; none being afterwards reported until 13th June, when they began to strike in, and light and irregular catches were made until the 28th. The following day 30 barrels were reported in nets, and on the 30th, 150 barrels were reported to have been taken in traps. On 20th July, herring were reported schooling outside, but no catches were made until the 29th, when some boats were reported with one barrel. During the first two weeks of August the catch, although irregular, was on an average good. None reported afterwards.

Lockeport.—Herring first reported 12th May, when light catches were made on that day and on 31st. From 19th June, to 18th July, light takes were reported daily. Dogfish became very numerous about 30th June, and rendered it impossible to set nets or traps. About 1st August, they struck in considerable quantities, and fishing was good for about 10 days, when dogfish again became numerous, and getting inside the schools of herring drove them off into deep water. Throughout September, the fishery was very poor and irregular. About the middle of October, net fishermen again made fair hauls furnishing sufficient bait for inshore fishermen. It is reported that one man at Green Harbour with a set seine, in the early part of

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June, made a haul of about 300 barrels, which were sold fresh for bait to bankers; thus supplying a much needed want, as at that time no herring were obtainable with nets. The total catch for the season is estimated about 2,100 barrels; total catch for small boats 1,800 barrels and seine 300 barrels. The number of boats engaged in this fishery is about 100, with an average of 6 nets to each boat besides one seine. Number of men employed about 250.

Sand Point.—About 24th May herring were reported offshore in large quantities, but few were taken inshore, although fairly plentiful, owing to fishermen's nets being of too large a mesh. On 30th June they struck in plentifully and were reported of large size, but few catches were reported, except on the 29th, when some boats had two barrels per net of large fish. Throughout August and former half of September the catch was exceptionally good, boats having from one to four barrels during first week, fish being large and of excellent quality. The total season was considered good; there having been about 5,000 barrels salted and packed for market, besides about 800 barrels sold fresh for bait.

Port Latour.—The first report of herring received was on 19th June, from which date, with the exception of some good catches during latter part of August and first part of September the catches were poor throughout the whole season; the total catch being estimated about 75 per cent of last season's catch, or about 3,000 barrels. It is reported that the large falling off in the fishery is greatly owing to the nets being left continually in the water for weeks at a time; thus driving the fish from their old feeding and spawning grounds.

Pubnico.—The herring fishery, as in the previous year has been a total failure.

Yarmouth.—Herring struck in 15th May, from which time until the end of June light catches were reported daily. About 14th September, herring were reported in abundance at Mud Island.

Digby.—Herring first appeared about 19th May, but as far as reported, the catches were light and irregular. Total quantity exported during past season is estimated about 551 barrels.

COD FISH.

Anticosti.

English Bay.—First appearance reported 1st June, during which month the average catch was good. On the 24th, boats on the western part of the island were reported with an average of 5 drafts (238 pounds) and fishermen had as much as they could cure. Throughout July and August the catches, although somewhat irregular, were on an average fair; none being afterwards reported until October, during the first two weeks of which month some excellent catches were reported. Total catch of 28 boats for season estimated at 1,114 drafts (238 pounds).

Fox Bay.—Fair catches of cod were made from 31st May, until about the 23rd of June, when strong easterly winds drove all fish away from that end of the Island. No catches reported afterwards. Total catch of 5 boats estimated about 175 drafts (238 pounds).

South-west Point.—First appearance about 23rd June, when they appeared in large quantities, but the catches, although good until about the 23rd of August, were very irregular, owing to stormy weather, and the great scarcity of bait which seemed to be the main obstacle. On the whole, the past season has been a good one. Owing to their being no telegraphic communication at stations on the northern part of the island, no reports of the state of the fishery in those localities were received.

Quebec.

Seven Islands.—Appeared first about 26th May, from which date until 4th June catches were light. During the remainder of the month and up to 14th July, the catches were good; but irregular catches were made until about 15th September.

St. John's River.—Fishing commenced on June 10th, and from that date until 10th July the catches were good each day. Estimated total catch about 1,000 quintals.

Long Point.—From 10th June until the 26th good catches were reported daily, and for the following week some excellent catches were made. From 3rd July to 10th the catch was fair, but stormy weather prevented fishing for about a week, after which some good catches were made and were reported fairly plentiful between Sheldrake and Esquimaux Point. Throughout August the catches were fair but irregular. From 5th to 10th September, fair fishing was reported between Thunder River and Esquimaux Point, and on the following days was very good at Esquimaux Point and the catches fair at Long Point until the 15th, when fishing was prevented by stormy weather. From 2nd to 12th October the catches were good at Long Point. From Esquimaux Point to Sheldrake fair fishing was reported on the 9th, but good from Sheldrake to Thunder River on the 12th. Total catch estimated at about 1,660 quintals.

Moisie and Ste. Marguerite.—From 28th July to 12th September the catches were fair, although very irregular.

Sheldrake.—The catches throughout June were on an average good, there being some excellent catches made during latter half of month. From 1st July to third week of October the catches, although fairly good, were very irregular.

Thunder River.—Good fishing was reported during second week of June, and fair last week. From 1st to 18th July fair catches were made daily, and during remainder of the month the catches were usually better. Total catch estimated about 5,500 quintals.

Gaspé.—The catch of cod for the whole season is considered somewhat below the average of former years.

Point St. Peter.—First report on cod on 17th May indicated an average of $\frac{1}{2}$ per boat; from which time until about the 11th of August the average catch was fair, although an excellent catch of 500 drafts was reported during the last week of July. From 11th of August to end of season, although cod was reported plentiful, scarcity of bait and bad weather prevented fishing. It is reported that the past season's operations have been good, and of the 125 boats engaged in this fishery the average catch is estimated at 130 drafts.

Percé.—First catch of cod reported on 20th May, and remained fairly plentiful until 16th June, when fishing was suspended owing to stormy weather. About the 25th, reports indicated fish plentiful, but owing to great scarcity of bait the catch was only fair. On 5th July, bait became plentiful, but the high tides and rough seas made it impossible for fishermen to make more than a fair average catch, which lasted until the close of the season, although bait again became scarce after 21st August.

Grand River.—Codfish appeared 1st May, but no catches were reported until latter part of the month, when light catches were made daily. During the first ten days of June, the catches varied from fair to good, but afterwards became poor, owing to scarcity of bait. The catches throughout July averaged fair, although they were reported plentiful on the banks about the 15th, bankers returning about second week of August loaded. High tides and stormy weather prevented inshore fishing throughout August, although some few catches were made during that month, and also in September. On the 15th of the latter month, boats again returned from banks with good fares, few being afterwards taken inshore, latter part of September, October, and first few days of November.

Newport Point.—Fishing commenced on 23rd May, and catches averaged fair during the remainder of the month, although on the 26th good fishing was reported on Orphan and Bradelle banks. On 25th June, cod were reported plentiful inshore and on the banks, but the catches were only fair owing to scarcity of bait, although a very few catches were made inshore. The average catch throughout July and first ten days of August was fair, after which the weather became bad, and but few catches were taken during the remainder of month. From 5th to 15th of August cod and bait were very good on the banks, and notwithstanding the unfavourable

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weather, some boats had from twenty to twenty-five drafts. During first ten days of September, the fishing was poor, but afterwards became fair inshore, while boats from banks returned with an average of eighteen drafts. Throughout October and first few days of November, when weather permitted, fair catches were reported daily. Estimated total catch for season, about 8,000 drafts.

Paspebiac.—Codfish appeared on 19th May, and for about four days very good catches were reported, throughout June and July the catch was fair; but afterwards became poor, owing to scarcity of bait and stormy weather, continuing so until about the middle of September, from which date until the end of October the catch was fair. During first half of November the catches varied from fair to good.

New Brunswick.

Caraquet.—First report received 29th May from this station indicated cod fishing very good on Miscou banks, where boats averaged 15 quintals—some being as high as 30 quintals. The inshore catches from 1st to 12th of June were poor, owing to scarcity of bait; but during the remainder of the month varied from fair to good, during first week of July the catches again became poor, owing to bait being scarce, and none were reported afterwards until first week of August, when good catches were obtained, boats varying from 15 to 25 quintals. The total catch to date is estimated about 10 per cent better than last season. Throughout latter part of season, fishing, owing to rough weather, was a partial failure; being considered about 20 per cent less than last fall. It is reported that during a gale of August 22nd, boats became so damaged that a number of them had to be hauled up for repairs and consequently lost about two weeks fishing.

Shippegan.—Fishing commenced about 12th May, but no catches worthy of note were made until the beginning of June, which proved an exceptionally successful month; boats and schooners obtaining full fares and the catch reported as being the largest for years. During the first week of July, although not as good as the previous month, boats obtained good fares; after which the catch, although irregular, was poor until end of month; the catch to date being reported in excess of last year. Throughout August and September the catches were very light and irregular, but during the first two weeks of October some excellent catches were made by shore boats. On the whole, the season's catch is somewhat below the average: *i. e.*, when a fair season's work has been done, boats average 150 quintals and schooners 200 quintals. This season the boats only averaged from 110 quintals to 120 quintals, and schooners averaged 175 quintals. This fishery is very largely prosecuted in this district, there being about 110 boats and schooners engaged; the fish being cured and mostly shipped to Mediterranean and West India Ports.

Escuminac.—The catch of cod for the whole season is considered fair; there having been some excellent catches made during the third week of June and second week of July.

Campobello.—First despatch received 28th May, indicated fair fishing; but trawl fishing in the channel not up to the average. During the first two weeks of June fishing slightly improved, but afterwards became poor, and remained so until the end of the month. No catches were afterwards reported, excepting for the first two weeks of September, when light catches were made daily.

Beaver Harbour.—Codfish appeared about 23rd May, from which date until the end of September the catch was light.

Grand Manan.—First catch reported 7th May, during which month the average was fair. On 31st May, they were reported plentiful at Dark Harbour, and on the day following plentiful at Grand Manan. Throughout June the average catch was good: some very good fishing also being done on Grand Manan bank on the 17th and at Money Cove on the 24th, when boats averaged 5 quintals. The inshore fishery was only fair throughout July, but bankers arrived about the latter end of month with good fares from Grand Manan and Ingall's banks. From 7th to 10th of August cod was plentiful on shore soundings, and good catches were reported. On the 12th, good fishing was obtained on gravelly ground, and on the succeeding four days some

excellent catches were made at Bradford's Cove, Clark's Rock, Southern Head and on shore soundings. After this, when weater permitted, the average catch was fair at Flagg's Cove and Bradford's Cove. During September fishing was as follows:— Fair on the second at Bradford's Cove, which slightly increased during the following three days; very good at Southern Head soundings and Bradford's Cove on the 6th and 7th, and on the 8th, boats averaged 6 quintals. On the 11th fair fishing was done on soundings and Three Islands, and on the 12th and 13th good catches were reported at Bulk Head, Southern Head, and on soundings; increasing on the following day to very good at Southern Head and Bradford's Cove, after which stormy weather prevented fishing. From 18th to 27th, some good catches were made at Bradford's Cove, Southern Head, Three Islands, Duck Island, Bulk Head, Rand's Rock and on shore soundings, although from 24th to 26th inclusive excellent fishing was done at Bulk Head. When weather permitted during October, fair fishing was reported at North Head, Rand's Rock and Two and Three Islands. Taking into consideration the number of men engaged in the fishing business in this district, which are estimated at about 400, the total catch, comprising 5,000 quintals dry cod and 200 tons of fresh cod, may be considered good.

Prince Edward Island.

Miminegash.—This fishery is not prosecuted to any great extent on this part of the coast. The total catch for the season was as usual very poor.

Alberton.—Here also the catch was poor for reasons above stated, although some boats did fairly well.

Malpeque.—Fishing commenced about 23rd May, and was an average catch.

Georgetown.—Cod fishing commenced about 25th May, but the catches proved very poor; being the smallest for some years past. Dogfish were very abundant, much more so than usual, and proved troublesome and destructive. Reports obtained from bank fishermen, indicated that owing to the prevalence of bad weather the catch of cod was not so good as it otherwise would have been.

Magdalen Islands.

Owing to the cable being interrupted during the greater part of the season, daily reports were not forthcoming. About the 22nd of May, cod appeared very plentiful, but owing to rough weather no catches were made. From about 6th June, to end of July the catches were poor, but for remainder of season were a fair average. Reports from Bryon Island and northern side of Magdalen's indicated good fishing throughout the season.

Cape Breton.

Port Hood.—First appearance about 18th May, during which month the catches were good. Throughout June the catch was rather light; but during July was a fair average. From 1st of August to end of season, when bait was obtainable and weather fine, the catches were fairly good.

Mabou.—A few light catches were made about 30th May, but from the 26th of that month until 13th June, good catches were reported daily; after that bait became scarce, and up to the 11th of August the catches only averaged fair. During the remainder of month little attention was given to this fishery, as fishermen were employed on government work at entrance to harbour. Throughout September, little or nothing was done from Mabou northward twenty miles, owing to high winds and rough weather. In October, cod were very plentiful, but on account of rough weather very few fish were caught. Dogfish were reported more plentiful on the coast this year, than for many years past, and their presence had, no doubt, much to do with the limited quantity of cod taken.

Margaree.—Cod were reported rather plentiful on the coast for the greater part of the season, but owing to the abundance of dogfish, scarcity of bait, and the

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small class of boats engaged in the fishery, the catches were only on an average fair. Fishermen report the fish keeping much further out from the shore than formerly.

Cheticamp.—Fishing commenced on 19th May, the average catch up to 7th July, having been fair; but for the remainder of the month poor. From 6th to 15th August, fair catches were made daily; after which date, owing to easterly gales, strong tides and scarcity of bait, but few were taken until October 6th, when fair catches were made for about 10 days when weather permitted. From the 16th to end of month light catches were reported daily.

Meat Cove.—Throughout June and first part of July, there was a good run of fish, and the average catch was fairly good. From that date very little was done until end of season, when weather permitted, and bait was obtainable. It is reported the past season's catch has been somewhat better than the previous years.

Ingonish.—From 15th May until end of July, although cod were fairly good, the catches were rather poor owing to scarcity of bait. During the first two weeks and last week of August fair catches were reported; although boats were greatly damaged and disabled by the severe storm of the 22nd. On 2nd September fish were reported plentiful, but owing to the heavy gales and strong tides, the catches throughout the month were only fair, although some excellent catches were made from the 11th to 15th inclusive. October proved better than the average for some years past, but as usual in this month the weather was very broken; but boats averaged fair when fishing was practicable.

St. Ann's.—Cod appeared about 12th May, and were taken in small quantities pretty regularly until end of August.

North Sydney.—Cod fishing poor all season.

Louisburg.—Fishing commenced about 9th May, but from that date until end of July the catches were very light. During August and September the coast swarmed with dogfish and bait was very scarce, the fishery thus being greatly hindered. It is estimated that not over \$200 worth were taken from 1st of August to 8th of September. In latter part of September, boats which were able to go off shore from 6 to 10 miles averaged two quintals. The weather throughout October was very stormy and but few light catches were made.

Gabarus.—Codfish appeared about 22nd May, and were taken in fair quantities until end of June; after which time the fishery was poor, owing to scarcity of bait, until the end of August. Throughout September and October, bad weather prevented fishing, although some good catches were made during second and third weeks of September. Total catch estimated 25 per cent less than last season.

L'Ardoise.—First catch of cod on 2nd June, during which month the average was fair. In July, fishing became poor, but slightly improved during first half of August, latter half being pretty stormy for fishing. Fair catches were made pretty regularly through September and October, although stormy weather somewhat hindered fishing in September. It is estimated that the total catch is in excess of last year's.

St. Peter's.—The cod fishery in this district has been, on an average, poor; but vessel fishermen from this place and vicinity, report having done as well, if not better, than last year. In Bras d'Or Lake, small catches were made from the 25th of April, all through the season. On 4th July, fair fishing was reported on Eastern banks, and on 4th August, vessels were doing better than last season on an average. On the 29th cod fishing was fair and bait plentiful, on Eastern banks, and about 16th September, fair fishing was reported when weather permitted.

Arichat.—The cod fishery from 9th May to 21st August, was on an average good; but after that date it was poor. The rough weather which set in after 21st August, coupled with the want of boats sufficiently large, and the absence of proper appliances for procuring bait, accounts in some degree for the fact the catch has not been larger.

West Arichat.—Cod fishing commenced about 23rd May, and although the catches were light throughout the season, they will compare favourably with those of

late years. The greater part of the fish this year were taken with hand lines; very few having been taken on trawls. It is reported among the best fishermen the quantity taken per boat was from 20 quintals to 45 quintals.

Petite de Grat.—From the 20th of May until the 9th of August, the catch varied from fair to poor; but during remainder of August was prevented by rough weather and scarcity of bait. Throughout September and October, fair catches were made when weather permitted.

D'Escousse.—Average catch fair from 30th May to 13th July. Of the fourteen vessels engaged in the North Bay fishery, the total catch this year was estimated at about 9,000 quintals. The vessels engaged in the deep-sea fishery have been very successful for the past several years, and each year one or two vessels are added to the fleet.

Nova Scotia.

Bayfield.—Codfish appeared about 20th May, but the catches were poor throughout the whole season.

Canso.—Cod first appeared in Chedabucto Bay 8th May, and light catches were made until the 22nd, from which date until the end of the season they varied from fair to good.

Whitehead.—Fishing commenced about 18th May, but were not reported until June, when light catches were made daily, between the 19th and 26th. During former half of July light catches were made regularly, but dogfish appeared and became very troublesome; after which the catches were very irregular until 4th August, from which date but few were taken. Total catch estimated about 1,500 quintals.

Isaac's Harbour.—A fair catch was made in the last week of May for the first time, but throughout the whole season they were very irregular, and at best only fair. During the month of October, good fishing was reported in deep water, but owing to unfavourable weather, fishermen were only able to get on the grounds two or three days during the week.

Spry Bay.—Some fair but irregular catches were made in the latter part of May and throughout June, and also in the latter part of October.

Salmon River.—The total catch is estimated about 10 per cent in excess of 1892.

Musquodoboit Harbour.—From 19th May until end of June, the catches varied from fair to good, but for the remainder of the season were fair when weather permitted.

Lunenburg.—On 5th May, good fishing was reported on shore soundings, but no catches were made until about the 29th, when good takes were reported for the succeeding three days. From 1st June to 15th the catches were fair, but were reported scarce on Western and Quero banks. During latter part of June, some excellent catches were reported, and for the remainder of the season the catch was fair. On 11th September, cod and bait were reported plentiful on Quero bank, but bad weather interfered with fishing, and fishermen returned about the 27th with an average catch. The total catch of the sixty Lunenburg bankers is estimated at 79,005 quintals, and of the six comprising the Labrador fleet, 3,850 quintals. It is reported that the total catch has not been so good as last year, owing to the prevalence of dogfish on the coast the past season.

Port Medway.—Although this fishery is not generally prosecuted, fair catches were reported from 4th May to end of June. Few light catches were also reported during the former parts of July, August, September, and October.

Liverpool.—Fishing commenced about 23rd May, and fair catches were made pretty regularly until end of June, when bait became very scarce, and as a result the catches were poor. About 27th July, cod fishing was reported good offshore, but scarcity of bait prevented any catches being made. From 1st to 11th August, fair fishing was reported, but about the 17th dogfish struck in and no catches were afterwards made.

Fisheries Report.

Lockeport.—Codfish appeared 2nd May, from which date until the end of June the catches were good; the fishing having been much better than last spring, and fish were of much better quality. About 27th May, very good fishing was reported on offshore grounds and small bankers did well. About the last of June, dogfish were reported swarming on the coast, and until the 28th of July the catches of cod were very light. On the latter date, however, herring struck in, and hauls averaging two barrels per net being made, cod fishing became excellent; averaging about two quintals per man. About the same time vessels from outside grounds arrived with an average of 22 quintals; throughout August and September, the average catch was fair. During latter half of September, vessels on offshore grounds averaged 15 quintals. On the whole the past season's work has been fairly good as the following results will show:—

	Quintals.
Total catch for bankers for season.....	12,500
“ small crafts “	4,600
“ boats.....	4,400
Grand total.....	21,000
=====	
Total number of vessels 75 to 100 tons. reg. engaged—banking 10 with 180 hands.	
“ “ 10 40 “ shore banking 15 with 135 hands.	
“ “ “ inshore fishing 80 with 240 hands.	

Sand Point.—Good fishing was reported in offshore grounds during the first week of May and continued good the whole month. About 29th May, bankers reported good fishing 18 miles south-east of Shelburne light. Throughout June and July the catches were fair; good takes having been reported on Roseway and La Have banks on the 6th of June. Good fishing was also reported on Roseway bank on 7th, 19th and 25th of July. During the month of August, and first half of September, bankers on offshore grounds, La Have and Roseway banks did well, while the catches inshore were very light in August but slightly increased during September. During the latter part of October and former part of November light catches were reported each day; fishing on shore soundings and La Have bank being fair on 4th November. On the whole, the total catch per inshore boat has been poor, not having exceeded one third of previous year's catches. It is reported that there were no schools of codfish in shore the past season; consequently the fish ran very small in size and scattering. Notwithstanding the fact that bait was very scarce throughout May and June, the small crafts and shallows with hand lines and trawls on outer grounds, have been more successful than for the past three years; and eastern bankers with hand lines also secured good fares.

Port Latour.—From 9th May, until end of June the catches were fair; but for the remainder of the season poor. It is estimated that the total quantity taken will be about 50 per cent less than last season; very few being of large size.

Pubnico.—Cod fishing commenced about 15th May, but were reported scarce throughout the whole season, with the exception of the month of June, when fair catches were made daily. Total catch estimated below the average.

Yarmouth.—From 5th May to 1st June the cod fishery was fair' but afterwards became good and remained so until the 14th, from which date until end of month the catch was fair. During the remainder of the season the fishery was poor, owing chiefly to scarcity of bait, and prevalence of dogfish; although fishing was reported on Trinity Shoals on 14th September and at Yarmouth during the 3rd week, when weather permitted.

Freeport.—On 22nd May fishing was reported very good on banks, but poor inshore, although a good catch was made on the 29th. No reports of catches were received after until 21st July, when light catches were made daily for about a week. From 25th to end of month a fine run of fish appeared on the grounds, but owing to scarcity of bait the catches were light. During the first week of August fair catches were made daily, and about the latter week of that month and first ten days of September fishing and bait again became fair, but stormy weather prevented fishing.

From 11th to 18th September, good catches were made daily. None afterwards. The total catch is estimated about 7,000 quintals and is considered about 1,000 quintals better than in 1892.

Digby.—First appearance on 3rd May; catches varying from fair to good until about 25th July, when they became poor and irregular until end of August. During the first half of September the catches again varied from fair to good, but after that the fishery was poor.

MACKEREL.

Quebec.

Gaspé.—The first appearance of mackerel was noted on 10th July, but the catches were poor and irregular.

Point St. Peter.—Very few mackerel were taken.

Fort Point.—Mackerel appeared on 30th June, but the catch, as far as reported has been a total failure.

New Brunswick.

Caraget.—On 26th July, mackerel were reported striking in Chaleurs Bay, but no catches were made until about 8th July, when they became plentiful, and Prince Edward Island schooners made fair hauls by nets during the succeeding ten days.

Shippegan.—Mackerel appeared 13th June, which was much earlier than last year, and light catches of large fish were made quite regularly until about 31st July, after which date and until the end of the month, the catches were good: fish varying from 16 to 20 inches, and boats averaging about 90 mackerel. During the second week of August, although fish was reported plentiful, the catch was poor, owing to the fish not taking the hook; the total catch to date is estimated as being below the average. From 12th September to 18th, fishing was very good and fish of large size. The total quantity taken is estimated about 1,000 barrels, most of which were salted and exported.

Escuminac.—From 29th June to 10th July, a few light catches were made each day; about the latter date they began to appear in larger quantities, and one schooner was reported to have taken about 40 barrels by drift nets, but none were taken by hooks. From the 12th July to the end of month the catches varied only from fair to good; notwithstanding the fact that they were plentiful. In size, they ran from 14 to 17 inches in length. Throughout August the average catch was fair, and the fish were put in freezers for further shipment.

Campobello.—A very fair catch of mackerel was made on 27th May, but very few afterwards reported.

Grand Manan.—The mackerel fishery, for the past season, has been almost a complete failure, there having been but about 20 barrels taken. Mackerel were reported schooling at the following places, but no catches were reported,—Seal Island, 26th and 27th June; Gannet Rock, 3rd July; ten miles off Swallow Tail, 19th of July; ten miles off Flagg's Cove, 9th August, and five miles off White Head, from 23rd to 26th August.

Magdalen Islands.

Mackerel appeared first about 6th June, but although seemingly plentiful few had been taken previous to 24th July, when hooking was reported very good on north side of island, and boats of two men each had from 250 to 1,000 per day. On 31st July, mackerel were reported more plentiful than for the past twenty years, and very good catches were made of fish of large size, but not very fat. Throughout August and September, when weather permitted, excellent hauls were reported, and they were also reported taking hooks freely at North Cape, on the 7th of August.

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The Bryon Island mackerel fishery has been very good during the past season. On the whole the past season's work has been good on the north-eastern part of the island, but very poor on the northern part.

Prince Edward Island.

Roseville and Miminegash.—Fishing commenced about 13th June, the catches being light until about the 27th, when mackerel were reported taking hooks freely, and from which date until the 17th of July, the catches were fair. During remainder of season the catches were light. Reports indicate that the season's catch has been a comparative failure, the season's catch not being over half of last season's. This failure is attributed to the stormy weather, as fish were reported plentiful throughout the season.

Alberton.—On 6th June, mackerel were reported schooling, but no catches were made until the 16th, when fair hauls were made on northern and western sides of island. On the 19th, fair netting was reported from Waterford to Tignish, and were schooling off North Cape. After this date the catches became poor, but fish were reported schooling on Bradley bank on the 28th, and at Frog Pond, Tignish and Alberton on the 3rd and 4th of June, when fair fishing was done, especially on the 15th and 16th, when local schooners made fine hauls, and Alberton and Tignish boats averaged 1,500. From the 19th to 23rd, they were schooling at all stations in this district, but the takes were poor during remainder of month, owing to rough weather. On 2nd August, good fishing was reported from North Cape to Kildare, and averaged 800. On the 12th, fishing slightly improved, and although fair catches were made during the last week, yet the stormy weather greatly hindered fishing, and boats having been badly damaged on the 23rd. Throughout September the weather was very stormy, although mackerel were schooling at Alberton on the 7th, and at Tignish on the 25th, no takes were reported, as they were supposed to be only tinkers. On the whole, the season's catch has been light.

Malpeque.—Fishing commenced about 9th June, and light hauls were made pretty regularly until the end of the month, when the catches slightly increased until about the 10th of August, and boats averaged 500. During the remainder of the season light catches were made when weather permitted. It is estimated that the total catch has been about 600 barrels; 500 barrels having been shipped to the United States, and the balance reserved for local consumption.

Georgetown.—Mackerel appeared about 7th July, the catches having been a fair average during that month. Throughout August the catches were rather poor, although they were reported plentiful and of good quality on the 19th. On 4th September the schooner "Orion" arrived with 103 barrels, but reported the weather too stormy for fishing. During the second week of September, when boats could get out, fishermen reported mackerel plentiful, but would not take hook. They were also reported schooling at Panmure Island on 10th July, and 29th August, and taking hook freely at Cardigan Bay on 10th July. On the whole the fishery proved very irregular and unsatisfactory, the gale of 21st August having practically closed the boat fishery; many of the fishermen having lost their boats. The total catch is estimated at about 500 barrels, and compared favourably with last season.

Cape Breton.

Port Hood.—The catch of mackerel, as far as reported, was light; there having been only a few barrels taken in nets and scarcely any with hooks. Those caught, however, were large and of good quality.

Mabou.—The season's catch was reported less than that of last year, and nearly all the fish were used for bait.

Margaree.—First appearance noted 15th June, but very few were taken during the season, although good fishing was reported at Friar's Head from 8th to 12th August, when boats averaged 800 large fish. Average catch per boat for season estimated at five barrels.

Meat Cove.—Mackerel appeared about 13th June, but notwithstanding the fact that they were plentiful, and reported taking hooks freely at Pleasant Bay, on 2nd and 3rd August, and Cape North on the 9th, the total catch is below the average.

Ingonish.—The catches of spring mackerel, of which the first was reported on 29th May, although irregular was somewhat better than last year; schools having been reported in the bay on 5th June, and good catches made, the highest being 800. During remainder of the season the catch was light.

St. Ann's.—First appearance in second week of June, but very few were taken during the season.

North Sydney.—Large schools of mackerel were reported off the harbour in August and September, but no takes were reported by boat.

Louisburg.—First appearance noted 27th May, fair catches having been made by nets during the spring and fall. The estimated catch per boat in June was ten barrels, while the catch for fall fish, which were large and fat, averaged five barrels. Good fishing was reported off Scatari 7th November.

Gabarus.—Mackerel appeared about 29th May but continued very scarce throughout the whole season, the fish having passed outside in deep water. Total catch estimated at about half of last season's catch.

L'Ardoise.—The catches of mackerel, as far as reported, were light; the total catch being estimated much below that of last year.

St. Peter's.—First appearance about 29th May, but only a mere sprinkling was taken during the season, until about 8th November, when a run of large No. 1 mackerel struck inshore from Three Island Cove extending to Point Micheau and during that week large quantities were taken daily. In the second week of July the movements of this fish were reported different from heretofore.

Arichat.—First appearance 30th May. The spring catch was reported a total failure, and as the fall catches were not general the average has been only fair.

West Arichat.—The mackerel fishery here has been a total failure.

D'Escousse.—Here also the fishery has been a failure; owing principally to the limited number of boats engaged, and which are reported to be decreasing each year, as outside fishing in vessels is found to be more profitable.

Petite de Grat.—First appearance noted 29th May, from which date until the end of June light catches were made daily; nothing having been done afterwards until the latter part of October, when some very good fishing was reported until about the middle of November. On the whole the past season's catch has been fairly good, the total catch being estimated at about 300 barrels, about the same as last year.

Nova Scotia.

Bayfield.—Mackerel struck in 19th May, from which date until end of September the catches were light; excepting from 5th to 15th of August, when large quantities were taken daily with hooks. Estimated total catch for season below the average.

Port Mulgrave.—During the past season, 153 barrels of salted mackerel and 278,330 pounds of fresh mackerel in barrels and boxes have been shipped from this station to the United States.

Canso.—Struck in 31st May, and light catches were made pretty regularly throughout the season. On 17th October boats did well in Chedabucto Bay, there having been a total catch of 432 barrels. *Petite de Grat* boats also did well here, having obtained a total catch of 10,800 mackerel. On the 23rd, good fishing was reported at the head of bay, and large hauls made. During the first half of November boats varied from 150 to 200 each.

Whitehead.—Very few reported; total catch will not exceed 75 barrels.

Isaac's Harbour.—Mackerel were reported schooling 29th May, but the catches were light. The fish were very large size.

Salmon River.—The mackerel fishery here has been a total failure.

Musquodoboit Harbour.—Mackerel appeared about 8th June, and during the second and third weeks of that month, last week of July and 1st week of September,

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light catches were reported daily. Total catch for the season, in this district, is estimated about 492 barrels.

Halifax.—From an unofficial source, the following information has been obtained in regard to mackerel fishery in this vicinity. Mackerel were reported schooling off the coast 29th September, and from 700 barrels to 800 barrels were taken in the coves along the shore and sold to dealers for shipment to Boston. These catches were sent fresh, packed in ice, something over 100 fish to a barrel, so that nearly 80,000 fish have been taken. The price obtained by the fishermen varied from 45 to 50 cents per dozen. About 10th November, they were again reported plentiful off the harbour, but no catches were reported.

Innenburg.—First appearance reported 24th May, from which date until the 16th June, the catches were light. On the 17th, 60 barrels were taken in traps, and from the 20th to end of month, some excellent fishing was done; there having been about 400 barrels taken; 50 barrels of which were sold for bait, 10 barrels shipped fresh to Halifax, and the balance salted. During the remainder of the season, light catches were made rather irregularly; fish being reported large but of poor quality.

Port Medway.—Very few mackerel taken during the season.

Liverpool.—On June 15th, large schools of mackerel were reported ten miles offshore, and on the 20th, were schooling three miles off. On the 21st, 24th and 26th, the catches amounted to 15 and 40 barrels respectively. About 4th July, large schools were reported between Cape Sable and Liverpool, but no takes were reported until the 29th, when a catch of 6 barrels was made. On 10th August, 120 barrels of large fish were taken in nets, and on the 12th, about 60 barrels were taken. Nothing was afterwards reported until about November 14th, when boats were reported to vary from 1 to 10 barrels each.

Lockeport.—Very few reported; total catch not exceeding 125 barrels.

Sand Point.—Fishery very poor, total catch will not be over ten barrels.

Port Latour.—The mackerel fishery in this district has been almost a total failure, owing to the same cause assigned in regard to herring. The total catch, exclusive of fish used for bait and home consumption, has not been over 50 barrels.

Pubnico.—Mackerel appears about 22nd May, and during the following two weeks some excellent catches were made; traps at St. John's Island and Bluff Head averaging 50 barrels. For the week ending 3rd June, 1,200 barrels were reported to have been shipped in ice to Boston, besides twenty barrels sold for bait. During the remainder of the month the catches were light, although on the 19th, traps at Pubnico Point and Bluff Head averaged 15 barrels. About 20th July, they were reported schooling in Pubnico Harbour, but the catches were light and nothing was reported afterwards.

Yarmouth.—About 1 dozen appeared in traps on May 15th and 16th, and large schools were reported to have passed on 22nd. From 29th May, to 26th June the average catch was fair, but during the remainder of the season were very scarce and exceedingly small.

Digby.—Reported schooling at Digby 31st May, and during the following month light hauls were made pretty regularly. On 26th June, they were reported schooling between Point Prim and the Wolves, but no catches were reported. During the first two weeks of July light hauls were made at Digby, and from the 19th to 21st, fair catches of very large fish were reported in St. Mary's Bay. On 1st August, the catch of 10 barrels was reported taken in sea-wall traps (in St. Mary's Bay) and on the 24th reports from the lower part of the county announced that mackerel had struck in along the Meteghan shore; the fish being No. 1 and 2 which were somewhat earlier than last season.

I have the honour to be sir,

Your obedient servant,

W. M. HUTCHINS,

Officer in charge Fisheries Intelligence Bureau.

APPENDIX No. 5.

NOVA SCOTIA.

District No. 1, comprising the four counties of the Island of Cape Breton.—Inspector A. C. Bertram, North Sydney, C. B.

District No. 2, comprising the counties of Cumberland, Colchester, Pictou, Antigonish, Guysboro', Halifax and Hants.—Inspector Robert Hockin, Pictou.

District No. 3, comprising the counties of Kings, Annapolis, Digby, Yarmouth, Shelburne, Queen's and Lunenburg.—Inspector J. R. Kinney, Yarmouth.

DISTRICT No. 1.

ANNUAL REPORT OF THE FISHERIES OF CAPE BRETON ISLAND, INCLUDING THE COUNTIES OF CAPE BRETON, INVERNESS, RICHMOND AND VICTORIA FOR THE YEAR 1893, BY INSPECTOR A. C. BERTRAM.

NORTH SYDNEY, C.B., 30th December, 1893.

Hon. Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries, Ottawa.

SIR,—I have the honour to submit herewith my annual report and statistics for the year 1893 of the fisheries in district No. 1, comprising the Island of Cape Breton and its coastal waters.

The total product for 1893 amounts to \$1,072,414.89, showing an increase over 1892 of \$25,372.54. This increase is divided among three counties, viz., Cape Breton, Inverness and Richmond; the county of Victoria showing a decrease of \$5,858.50. This is more clearly shown by the following abstract:—

Counties.	1892.	1893.	Increase.	Decrease.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Cape Breton.....	178,958 16	182,705 21	3,747 05	
Inverness.....	338,945 80	357,753 83	18,808 03	
Richmond.....	360,953 93	369,629 89	8,675 96	
Victoria.....	168,184 46	162,325 96	.....	5,858 50
Totals.....	1,047,042 35	1,072,414 89	31,231 04	5,858 50
Increase.....			25,372 54	

The increase shown above is made up by the lobster fishery, which has been exceptionally good in the three counties referred to.

Had it not been for this branch of the fishing industry there would have been a decrease in the total value of the fisheries for 1893 in this district, owing largely to the failure in the herring fishery, which shows a falling off of 4,105 barrels. I find also that the number of men engaged in the fisheries during 1893 was 6,924, showing a decrease over last year of 944, the decrease being in the counties of Victoria,

Fisheries Report.

Richmond and Inverness. The county of Victoria, in which a coal mine was reopened this year, shows the greatest decrease in the number employed. While there is an increase of 7 vessels engaged in the fisheries over last year, there is a decrease of 61 in the number of boats. The decreases by counties in men and boats employed can be seen from the following table:—

Counties.	Men.		Vessels.		Boats.	
	1892.	1893.	1892.	1893.	1892.	1893.
Cape Breton.....	1,531	1,630	9	8	782	846
Inverness.....	2,091	1,936	10	12	813	785
Richmond.....	2,412	2,070	62	68	1,143	1,283
Victoria.....	1,883	1,288	2	2	1,032	795
	7,868	6,924	83	90	3,770	3,709

There is a disposition on the part of our fishermen to engage in other callings when opportunity offers. This is evidenced from the returns of Victoria county, where the New Campbellton coal mines which had been closed since 1875 were reopened this year, employing a number of those in that district who were last and previous years engaged in fishing.

In the same county the gypsum quarries, which showed increased development this year, employed a considerable number of men and as a result the fishing districts were drawn upon to supply the demand of increased labour. There is also a falling off in the number of fishermen in the county of Inverness where a coal mine and gypsum quarry were also opened up during the year.

Thus is the decrease in the number of fishermen accounted for in the two counties where the decreases are given in the returns. Shore fishermen complain that the fishing industry has not been profitable of late years and is growing more so from year to year. The years 1892 and 1893 were certainly not profitable ones for our shore fishermen, excepting those who were engaged this year up to the end of the season in the lobster fishery.

Had it not been for the success of this fishery I fear there would be destitution in some localities. The principal fishery of this island in former years was the cod fishery, but of late years these fish have not been found plentiful inshore until towards autumn. This was noticed particularly this season as fishermen did poorly until the month of October; "No fish" being the daily cry. Towards the end of the season the fish began to strike inshore and both boats and vessels made good hauls when the weather permitted. There is no doubt but the cod is a local fish and they live in colonies or families, each having a distinct *habitat* and that their migrations are limited in area, being merely from deep to shallow water, for spawning and feeding purposes, and each family keeps to its own locality. Fishermen tell us that there are localities in which larger and finer fish are invariably obtainable than in others.

It is even stated that an experienced fishermen can tell on close examination, where a specimen submitted to him has been taken. Various causes are assigned for the cod keeping in deep water during the summer months. One reason advanced is that fishing vessels from United States and Western Nova Scotia ports which engage in bank fishing keep the cod outside by the quantities of offal thrown overboard on the grounds.

Another reason is the presence during the past two years of immense schools of dog-fish on the coast. What baffles the most scientific inquiries is that for about 40 years previous to 1892 dog-fish were not known to visit our waters. Last year they made their appearance after such a long absence, and this year they were

found more plentiful and more destructive. When these fish were found on our coast 40 years ago they were quite valuable for the quantity of oil yielded, the price realized per gallon remunerating the fishermen for time and labour, but what can be obtained now therefor in our market does not pay the cost of production. The only use fishermen now make of these fish is to feed their swine. Some contend that there is medicinal virtue and nourishment in them for horses, if dried, pulverized and mixed with feed.

If these fish continue to swarn our coast, as they have for the past two years, the shore fisheries will suffer greatly. Dog-fish not only frighten away the other various kinds of fish from the shore waters but are very destructive to trawls and nets. They make their appearance on our coast in July and remain until October.

As already referred to there is an increase of 7 vessels in the number engaged in the fisheries this year. This increase, small though it be, is a pleasing sign of the times, as experience of late years must teach our fishermen that only vessel fishing will pay. The department has wisely encouraged this mode of fishing by increasing the bounty to vessels prosecuting the industry and by encouraging the building of a suitable class of fishing vessels. Every season the banks adjacent this island are covered with vessels from various parts of the Maritime Provinces and the United States. The men thus engaged do much better than boat fishermen, while the owners reap handsome profits for outlay. These vessels come to our shores from afar, and surely if their owners and those employed in them find this mode of fishing profitable it would be more so to our island fishermen as they live near the best fishing grounds in America and have advantages that outsiders cannot enjoy. While the returns represent the result of the year's fishery crop so far as our local fishermen are concerned, they do not show, by at least 60 per cent, the quantities of fish caught in the coastal waters of this island. The fishery statistics of Western Nova Scotia, St. Pierre, Miquelon and United States fishing districts would need to be consulted to give an idea of the yearly drain from the fishing grounds surrounding Cape Breton.

COD.

I find a falling off in this branch in the counties of Cape Breton, Inverness and Victoria and an increase in Richmond, leaving a total decrease for the whole district of 1,471 cwt. The aggregate value of the catch of cod for the year is \$444,919.50, a decrease compared with 1892 of \$2,358. Inverness County shows the largest decrease.

HERRING.

Herring are the first fish to visit our shores in the spring and upon this run, the cod and lobster fishermen largely depend for bait. These fish are much inferior to the mid-summer run, which command \$2.50 and \$3 per barrel more than either spring or fall herring and are used largely for home consumption by all classes. It is in these fish that the greatest decrease has taken place, being 4,105 barrels, each county contributing to the decrease. The cause for the absence of summer herring during the past two years cannot be accounted for. Herring are known to be sensitive to stormy weather and during storms make for deep water. Both this season and last just as they were making their appearance on the coast heavy east and north-east storms occurred lasting for several days. It may be that these storms caused the fish to return to deep water, thus resulting the failure the statistics for the past two seasons indicate.

The loss of this branch of the fishery is seriously felt by our people.

During the last days of December a medium sized run of herring, quite fat and nicely flavoured, was making its appearance in our coastal waters. Net fishermen were taking each day from one-half to a barrel per boat. What the extent of this fishery will be cannot be known until the publishing of next season's statistics, as the fish are likely to remain in our waters through the month of January.

Fisheries Report.

MACKEREL.

This branch shows a total increase of 59 barrels over 1892. The county of Inverness shows an increase of 2,500 barrels and the county of Richmond a decrease of 2,774 barrels.

The returns for the counties of Cape Breton and Victoria give an increase of 255 and 22 barrels respectively.

In a special report to the department, I have dealt extensively with this branch of the fishery, giving the dates the various runs appear on our coast, the methods used in capturing and curing these fish in this district. The mackerel fishing industry is capable of much greater development by the fishermen of Cape Breton.

SALMON.

The statistics give a total increase in this branch of the fishery over 1892 of 27,336 pounds of fresh and 39 barrels pickled, besides 352 one-pound cans. The counties of Inverness, Richmond and Victoria contributed to the increase in the salmon fishery, Cape Breton county alone showing a decrease. In Inverness county is this fishery most extensively carried on, where the salmon are purchased fresh from the net fishermen and either placed in the freezers at Margaree Harbour and Port Mulgrave, or shipped in ice to Canadian and United States cities. There are two causes for the increased development in this branch of the fishery of late years. The first is the protection offered the various rivers by the department. The second, the increase in the number of fishermen engaged in prosecuting the salmon fishery.

Notwithstanding the increased drain of late years on the excellent salmon fishing grounds between Broad Cove and Eastern Harbour there is no sign of the waters becoming depleted, and salmon were found more plentiful the last season than in any previous year. The Margaree River is the principal spawning river for these fish. It is a well established law of fish-life that where the young come to life and spend their early days, thither they return when matured to spawn, and thus "repeat the story of their birth."

ALEWIVES.

There is an increase of 805 barrels in alewives over the previous year, the counties of Cape Breton, Inverness and Richmond contributing to make up the increase, while the county of Victoria shows a decrease of 86 barrels. This is principally a bait fish, as in the case of spring herring fishermen depend a good deal on alewives for their bait supply. They are used also for home consumption by the poorer classes of our people. Those fish require an easy and certain passage from tidal waters to the fresh water lakes and streams.

Cape Breton Island with its numerous rivers and lakes affords ample spawning grounds for alewives. The increase shows that the supply is keeping up.

SMELTS.

Although there was an increase in the number of licenses issued for bag-net fishing, I find a falling off in the catch of smelts for this year of 1,526 pounds over that of the previous year. The decrease has been the greatest in the county of Richmond, where the returns show a falling off of 14,656 pounds. Cape Breton county shows a decrease of 1,850 pounds, and the counties of Inverness and Victoria an increase each of 400 and 6,580 pounds respectively.

The cause of the decrease in the county of Richmond was owing to the scarcity of these fish in the tidal waters and estuaries of rivers.

The month of December continued mild throughout, which also had a militating effect on the fishery, as it can be more successfully prosecuted through ice than in open waters. Frost is necessary to freeze the fish for market. The smelt are taken from the nets, placed in small boxes and shipped by rail to the United States, New-York being the principal market. The price varies from 7 to 13c. per pound.

TROUT.

The past few years have not been favourable for this fishery in Cape Breton, owing to prevailing droughts during the months of July and August when the fish ascend to the upper waters of the rivers and streams. While the waters continue low and clear in the streams, trout will not enter the pools. I find, however, a total increase over 1892 of 1,884 pounds, made up by the increased catch of 3,774 pounds in the county of Victoria, where the streams were diligently whipped by Americans who visited Baddeck in summer and who are passionately fond of trout fishing, Cape Breton and Inverness counties both show a decrease. As these fish are used altogether for home consumption it is difficult to obtain accurate statistics of a season's catch. The officers who gather the statistics have to rely a good deal on their own judgment and that of others in the district for an estimation of the total catch each season.

LOBSTERS.

The returns from the four counties of this island show an increase in the lobster catch over the season of 1892 of 195,715 pounds. The largest increase is shown in the county of Richmond, being 85,214 over the previous year. This increase is owing to the lobsters being more plentiful on the coast than former years, notably at Gabarus and Fourchu districts, and also to the fifteen days' extension of the fishing season. In the district of Gabarus and Fourchu many fishermen would not have been able to purchase winter supplies for themselves and families had it not been for their earnings in this fishery. I watched the condition of the lobsters closely during the days of the extension and found that they were as free from berries and the meat as firm as at any time during the season.

The market price of lobsters has somewhat decreased but packers hope for an advance next season. While there were several new canning establishments operated for the first time the past season, there were as many old ones not in operation. There is not likely to be any increase in the number of factories canning next season.

OYSTERS.

The principal oyster beds of this island are in the counties of Inverness and Victoria. Although there are also a number of beds in the counties of Cape Breton and Richmond, the most fishing is done in first named counties.

The returns from Victoria county show the largest increase, but it should really be credited to Inverness, as the fishermen of the former county secure the greater number of oysters taken by them from the beds of the Inverness district.

Altogether there were 2,734 barrels taken this year against 2,631 barrels for the year 1892. The most important oyster beds of the island are in the River Dennis Basin, Inverness County, covering an area of about ten miles. Oysters are fished in this district with very crude appliances. The principal markets are found in St. Pierre, Miquelon and in the cities and towns of Nova Scotia and New Brunswick. Last season a few barrels were shipped as far west as Port Arthur, Ont.

The Cape Breton oysters are of an excellent quality, and I have no doubt, if the beds were properly cultivated, more modern appliances used in fishing, and the fishery more extensively prosecuted, the industry would become a very profitable one for Cape Breton Island.

MARKETS.

Canada, the West Indies and the United States are the leading markets for our fishing products. The greatest quantity, notably dry codfish are sold to Halifax dealers and from there reshipped to the West Indies. A good deal of our spring and fall herring are also disposed of in the same way, but our fat mid-summer herring are not suitable for such a hot climate. Salt salmon in barrels are also

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shipped to the West Indies market. The best markets for green fish are found in Montreal and Quebec, this fish being shipped direct by rail and stream up the St. Lawrence. Of late years the demand for this kind of fish has increased and better and surer prices are now realized by our fish dealers. Mackerel, pickled and fresh salmon and smelts find the best market in the United States, although fish dealers say that the American market fluctuates greatly and prices for fish are uncertain.

I have dealt with the subject of the protection afforded the fisheries of my district in a preliminary report and therefore deem it unnecessary to say more on that point.

Herewith will be found a synopsis of the reports of overseers in this district, all of which is respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

A. C. BERTRAM,
Inspector of Fisheries.

SYNOPSIS OF FISHERY OVERSEERS REPORTS FOR THE ISLAND OF CAPE BRETON.

CAPE BRETON COUNTY.

Overseer Francis Quinan, of Sydney, reports that lobster fishing began in his district on May 20th. Three factories were operated, the most successful of which was situated at Southern Head, Cow Bay. The other two factories were not fitted out for extensive canning and consequently only put up a limited quantity of goods. High winds destroyed many of the lobster-fishermen's traps. Of the season's pack 740 cases were shipped to Boston, and 447 cases were shipped to Halifax. The goods forwarded to Halifax and the result of the output of two canneries was found to be damaged, the meat becoming black owing to bad canning. The 447 cases were afterwards re-shipped to St. Pierre, Miquelon, where a sale was effected.

The salmon catch was poor in his district owing to the fact that when these fish were making their appearance heavy storms occurred destroying fishermen's nets. In the spawning season an unusually large number went into the Sydney Forks River. The cod fishery shows an increase in catch this year; towards the close of the season cod were found very plentiful inshore; fishermen complain that in mid-summer cod are kept outside by vessels throwing gurry overboard.

The mackerel fishery was not a success with the local fishermen but American vessels did well outside. The mid-summer herring catch was poor, those fish being scarce; a quantity of spring herring was taken and disposed of for bait to vessels. The halibut catch shows a slight improvement over 1892. The fishing industry is not as vigorously prosecuted as in former years owing to the high rate of wages paid at the mines. Many of those who formerly fished are now engaged in mining.

The fishery regulations were well observed in his district, there being only two complaints, resulting in the offenders being convicted and fined.

Overseer Alexander McDonald, of East Bay, reports a decrease in the cod, herring and mackerel fishery in his district, which he attributes to the scarcity of these fish. From beginning to the end the industry was prosecuted by fishermen as vigorously as in former years. The season, therefore, has been a poor one for fishermen. The lobster fishery yielded the fishermen the best returns, the pack in his district being 4,840 cases over the previous year's pack. This increase is due to the extension of the season for fishery and fewer storms. The grounds were well fished.

The salmon fishery is not prosecuted to any great extent. Halibut fishing is an industry of the past owing to the scarcity of the fish. To trawl fishing is attributed the cause. Trout fishing was also poor, the waters in the rivers being low during angling season. Towards autumn, however, trout and salmon ascended the rivers in large numbers to spawn. The alewives catch is about the same as in the previous year. This branch of the fishery is not vigorously prosecuted as these fish visit the

bays and rivers in large numbers. Of the catch of cod 75 per cent is sold in the Canadian markets, herring about 30 per cent, and the full catch of mackerel and the lobster pack. The balance of herring and cod finds a local market principally in the mining districts. The close season was well observed, there being no violations. There are no fish-ways and none required in his district, there being no mills on any of the important streams. There are one or two shingle mills on unimportant streams but these mills are only operated in winter when the water is high. He recommends that the slats on each side of lobster traps for three courses upwards from the bottom be $1\frac{1}{2}$ inches apart. This would allow small lobsters to escape.

Overseer Wm. Burke, of Mira Ferry, in comparing the statistical figures of 1893 with those of the previous year, finds a general decrease in the catch of all kinds of fish in his district excepting mackerel in which there is an increase, more particularly in the district of Mira Bay and Main-à-Dieu. He attributes the decrease in the cod and herring fishery to the presence of dog-fish, which visited the fishing grounds in his district in July and remained till the middle of October, searing fish and destroying the nets.

Squid for bait was plentiful and easily obtained during the latter part of the fishing season. The fish caught and cured in his district were marketed in Halifax, with the exception of 600 barrels of mackerel, sold in Boston. The following is the nearest approximation of marketed fish: cod, haddock, herring and alewives, 95 per cent; mackerel, 99 per cent; salmon, 10 per cent; leaving for home consumption the balance together with the entire catch of trout, smelts, eels and halibut. The fishery regulations were well observed in his district, only one violation having been discovered by him, a violation of the lobster regulations in which the offender was convicted. There are no nets or fish-ways in his district. The rivers were well guarded by himself and guardians. Three guardians are required in his district for next season during months of June and July.

Overseer Richard Hickey, of North Sydney, is pleased to report that the fishing season of 1893 has been a fairly profitable one for the fishermen of his division, all the principal branches of the deep sea and inshore fisheries with the exception of herring showing a satisfactory increase over that of the previous year. The statistics will show a slight decrease in the herring catch over the comparatively small yield of the year 1892. This is owing to the failure of the mid-summer or July run of herring during the past season. In a certain measure, however, were the fishermen recompensed by the appearance of an excellent run of herring in the harbours and bays during the latter part of the year just closed. These fish were of a very fine quality and large catches were made in some districts. It would be difficult to assign any direct cause for the falling off in this important branch of the fishery from year to year. Many of the fishermen are still of the opinion that the large numbers of lobster traps which line our shores from the first of the season until the middle of July serve to divert the course of the herring, thus keeping the first from entering the harbours and bays along our coast. Another cause likely to have a detrimental effect on both the mackerel and herring fishery may be attributed to the almost continual disturbance of our coastal waters by the many freight and passenger steamers plying between Cape Breton and the St. Lawrence, Newfoundland and other ports during the navigation season. The number of steamers engaged in the coal-carrying trade of this island has greatly increased during the past five or six years. It is an undisputed fact that before the appearance of so many steam vessels to our coastal waters the herring and mackerel fisheries were far more profitable than of late years. If the scarcity of mackerel and herring noted during recent years can be directly attributed to the last mentioned cause, then the fishermen need not hope for much improvement in future to these important branches of our fisheries, as steam is fast taking the place of sailing vessels in the transportation of coal from Cape Breton ports. The improvement in the other branches of the fisheries may be almost wholly attributed to the very favourable weather enjoyed by the fishermen during the season of 1893. Absence of any great or prolonged storms during the most important fishing months was a marked characteristic of the season. The quantity of fish used for home consumption may be put down at

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about one quarter the total amount taken by all fishermen. The greater portion of the fish not used for home consumption was sold to Halifax fish merchants, while a small percentage was shipped to the Montreal market. The several close seasons have been well observed in his district during the past year. From a close observation and information regularly received from the most important districts of his division, he says that the law was never better observed by all classes of fishermen. The only violation of the Fisheries Act that came under his notice during the year was a slight infraction of the lobster fishery regulation at the factory of Messrs. L. Picket & Co., situated at Little Bras d'Or Inlet. On visiting this factory June 2nd he discovered several illegal lobsters in a lot of about 4,000 which had just been delivered on the premises. The matter was reported to the Inspector of Fisheries, with the result that a fine of \$12 was imposed on the proprietor of the factory. He states that he always found both the manager of the factory and fishermen well disposed to observe the law and does not think the violation referred to was intentional on either part. As the statistics will show the lobster fishery of his district for the past season was a very successful one, there being an increase of 11,950 cans in the quantity of lobsters put up by the Little Bras d'Or factory over that of 1892. Were it not for the great scarcity of bait during the latter part of the season a still greater increase would be shown. There are no important streams in his district to which the enforcement of the Sawdust Act applies. There are several small mills situated on unimportant streams, the owners of which are careful to keep mill refuse from falling into the water. There are no fish-ways in operation in his district. He is not aware of any recommendations that he could suggest which would be for the improvement or better protection of the fisheries of his division. He thinks, however, that if the deep sea fishery was prosecuted by vessels of a handy and convenient tonnage instead of comparatively small sail-boats as at present, the fisheries of this important district would rank first in value with those of any county in the Maritime Provinces.

INVERNESS COUNTY.

Overseer D. F. McLean, of Port Hood, reports an increase in the catch of the following branches as compared with that of 1892, viz.:—Salmon, herring, mackerel, lobsters, haddock, trout, bass, smelts, alewives, eels, squid, and a decrease in cod, hake and fish oil. The cause which he attributes to the decrease in the catch and yield of the last named branches is due to the fact that dog-fish has frequented the coastal waters in abundance, proving a source of injury to the fishermen by destroying fishing gear and devouring fish on trawl, hooks and in nets. The increase in other branches of the fisheries in his division is due to a more vigorous prosecution of the industry than during the preceding year, and dog-fish were not so plentiful during that part of the season the greater quantity of fish in the branches named were taken. He estimates the quantity of the fish caught used for home consumption at 10 per cent. About 90 per cent of the salmon; 95 per cent of the mackerel; 75 per cent of the lobsters; 75 per cent of the smelts; 80 per cent of the eels are exported to the United States, the remainder is sold in Canada, part of which may possibly be exported to other countries afterwards.

Nearly all the codfish, haddock, hake and salted herring are sold in Canada in the first instance, about 80 per cent of which is re-shipped to the West Indies and other foreign countries. About 20 per cent of canned lobsters is shipped to Great Britain and France. The catch of fresh herring is sold chiefly for bait to Canadian fishing schooners and such United States fishing vessels as procure licenses under the *Modus Vivendi*. The several close seasons have been strictly observed in his district. He frequently visited every locality where violations of the fishery laws would be likely to occur and found in every instance the fishery regulations complied with. The special guardians appointed for his district made similar reports to him. No illegal fishing came to his knowledge. The Sawdust Act has been complied with in his division by the mill owners keeping the same out of streams frequented by fish. The dumping of sawdust and other mill rubbish into streams is considered injurious. There are no fish-ways in his division. There was one trap-net under

license from the Department of Marine and Fisheries set at Hurd's Point, Port Hood, Inner Island, by John H. Murphy. The catch in said trap and value thereof for the season was as follows, viz:—

	Value.
Mackerel, 25 brls. salted.....	\$175 00
Squid, 40 do fresh.....	120 00
Herring, 10 do fresh.....	10 00
Codfish, 1,500 lbs. fresh.....	15 00
	<hr/>
Total value.....	\$320 00

Nearly all the fresh fish named in the above was used as bait by boat and vessel fishermen. Before the end of the fishing season the storms did very considerable damage to this trap. He respectfully suggests that a provision be made of a compulsory character for re-stocking and leasing the oyster beds of the county of Inverness.

Overseer James Coady, of South-west Margaree, report an increase of 50 per cent over the year 1892, yet very few ascended the river in July owing to the water being low as a result of a dry season. Between the middle of August and September when the river became high the fish began to ascend to the upper waters. The lobster fishery he reports about the same as the previous year. The catch would have been larger were it not for scarcity of bait. The bait chiefly used for lobster fishing is spring herring and the poor catch of those fish made bait scarce and the fishermen as a consequence were handicapped.

The summer run of herring promised well but dog-fish made their appearance and not only frightened the fish but destroyed the gill-nets, causing a failure in this branch. The catch of mackerel shows an increase of about 20 per cent over catch of 1892. The abundance of dog-fish on the coast and unfavourable weather interfered with the fishery. The cod fishery shows an increase over the previous year, due to a more vigorous prosecution of that branch in the southern part of his district. Alewives also show an increase over 1892 of 685 barrels, which is double the average of the last few years. The catch of other kinds of fish is about same as taken in 1892. He estimates that 70 per cent of the fish taken in his district was marketed in Canada and the balance disposed of in the district for home consumption. One case of illegal fishing came to his notice, the offender being convicted and fined. Three unsuccessful attempts were made in his district at poaching. The offenders who escaped lost their boat and two nets, which were destroyed. The guardians did effective work in protecting the rivers in his district. The sawdust regulation was well observed. There are no fish-ways in his district and none are required.

Overseer David Ross, of North-east Margaree, reports an increase in the catch of salmon over that of 1892, of 5,355 pounds. The increase is due to more fish schooling on the coast in July than in former years and a more vigorous prosecution of that branch of the fishery.

The statistics show an increase of 1,960 cwt. in the catch of cod, due to favourable weather and a more vigorous prosecution of the fishery. There is also an increase of 1,002 barrels in mackerel and a slight decrease in the catch of herring. Mackerel were more inshore and the fall run more plentiful. The catch of lobsters shows an increase of 44,712 pounds over the previous year. This is due principally to the operation of an additional factory in his district. He estimates that about 10 per cent of the total catch of fish in his district was exported abroad and that 40 per cent was used for home consumption. The Sawdust Act has been strictly observed. There are no fish-ways in his district and no mills operated on important streams. Several attempts at illegal fishery were made and the offenders were all discovered and convicted in Fishery Court.

Overseer Lewis McKeen, of Mabou, reports the total catch of fish in his district in excess of the catch of 1892. The weather during the early part of the season was favourable, but after the 20th July it became blustery, entailing much loss of valuable

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time to fishermen, thus bringing about a smaller catch of fish than would have otherwise occurred. The catch of salmon although small was in excess of the catch of 1892. Salmon were abundant in the rivers and streams during the spawning season, but owing to the drought which prevailed in midsummer these fish did not ascend the different streams until October. He reports a decrease in catch of herring confined to the summer run which was a complete failure. He can assign no cause for the scarcity of these fish. The herring fishery of his district during the last decade has not been of much commercial importance except affording a supply of bait for the prosecution of the other branches. The scarcity of herring materially affected the catch of cod and lobsters. There is nothing special to note in the mackerel fishery of the season. The catch was about same as last year's. This branch, once so profitable, has not been prosecuted to any great extent of late years. The decline of this fishery is a well known fact and has led to considerable speculation among local fishermen as to cause. Many believe the grounds were overfished by purse-seines and gill-nets. He reports an increase in the catch of cod, hake, and had-dock. The increase is due to more vigorous prosecution of these branches over 1892. During the past five years in his district an immense falling off in the catch of these fish has taken place. This is due to the fact that fewer boats are now engaged in this industry. Various causes have helped to bring about the change. The coal-mining, gypsum, and other industries carried on of late years in his district have drawn from "along shore" a number of people who formerly engaged in fishing. Three lobster factories were operated in his district during the season, the catch being greatly in excess of last year, notwithstanding that operations did not commence before 18th May. Lobsters were found large and plentiful. Towards the close of the season the weather became blustery, which also militated against the season's catch. He considers the season for lobster fishery too short. The catch of trout in his district shows no increase over the poor catch of 1892, caused by droughts, the water being too low in the rivers. There was an average catch of eels and smelts. The three last kinds of fish were exclusively used for home consumption. Two bag-nets were imported and attempts made to fish in Mabou Harbour, but proved a failure owing to the want of a strong current. About 50 per cent of the total catch of fish other than salmon were shipped to the Halifax market. The total catch of lobsters were exported to the United States.

Canned salmon and salmon salted were shipped to Halifax. The fresh article was used for home consumption. The fishery regulations were well observed, the guardians employed doing effective work. The Sawdust Act was generally observed, the mills having means to keep refuse from going into the streams. The milling is very limited in his district, and there are no fish-ways and none required.

Overseer Peter McEachen, of Glendale, reports an increase in his district in the catch of codfish and oysters, an average catch of trout and smelts, and a decrease in the catch of herring. There are 16 small saw-mills in his district and at each the law is observed. There are no fish-ways in his district, but he is of opinion that one or two are required. There were only two violations of the river regulations in his district during the season. The cases were promptly reported and dealt with in the Fishery Court. Two or three nets were discovered in the River Dennis and destroyed.

RICHMOND COUNTY.

< Overseer D. Cameron, of St. Peter's, reports that while there is a marked increase in the catch of cod and lobsters in his district over last year's catch, there is a very serious falling off in the catch of mackerel and herring. The small catch of mackerel is attributed by local fishermen to the use of tuck-seines during the latter part of May and beginning of June, when mackerel are approaching the shores. The schools are intercepted some miles at sea and continually harassed by vessel fishermen equipped with seines. The schools are broken up and the fish scattered and instead of striking inshore the fish go further out into deep water. The decrease in the catch of herring, he believes is due to a less vigorous prosecution of that branch of the industry, as the return of boats engaged therein this season shows nearly 200

less employed than the season of 1892. There were also a large number of vessels engaged in the cod fishery this season, which fact in view of the large quantity of cod taken shows that cod must have been more plentiful than in the previous season. Respecting the market which Canada affords the native fishermen he is of the opinion, based on his own experience and that of merchants engaged in the industry, that only a very small percentage, about 10 per cent, of the fishery products are disposed of in Canada. This county, he thinks, is depending more year by year on foreign markets. The home consumption in his district is about 1 per cent of the total catch. The close season, he is pleased to report, is well observed. Not one case of illegal fishing was reported to him during the season. There are no mills to interfere with fish ascending any of the streams in his district.

Overseer Alfred Lenoir, of Arichat, reports an average in the total catch as compared with 1892. The lobster fishery commenced 1st of May, with a good run of lobsters of large size and the fishery continued fairly good until the close of the season. The eight factories in his district gave employment to 140 persons. Three offenders were convicted and fined during the season for taking illegal lobsters. The quantity of haddock taken is about the same as last year's catch. Vessels from his district engaged in cod fishing in the North Bay, did not do as well as last year, owing to stormy weather. Spring mackerel did not strike in the bays in his district as formerly. The cause of these fish not striking in he believes was owing to seiners fishing within the three-mile limit before the arrival of the cutters, and thus interfering with local fishermen. The summer herring fishery was poor, the cause for which is assigned to the large numbers of lobster traps placed in the coastal waters during the first of the season. There was, however, a few good runs of fall herring which partially made up for the deficiency in the catch of summer herring. Smelt fishery is poorly prosecuted in his district. He reports an increase in the number of vessels engaged in deep sea fishing. The fishery regulations were well observed.

Overseer John Murchison, of Grand River, reports an increase in the catch of cod, haddock, herring, alewives, pollock and lobsters, and a decrease in the catch of mackerel and halibut, as a result of the fishermen's labours for the season. He gives the following comparative statement of increase and decrease.

Increase.	Decrease.
Herring, brls. 91.	Mackerel, brls. 1,190.
Alewives, " 96.	Halibut, lbs. 3,500.
Codfish, cwts. 2,509.	
Haddock, " 1,463.	
Pollock " 136.	
Lobsters, lbs. 39,472.	

The shortage in the catch of mackerel in his district is chiefly attributed to American and Nova Scotian seiners who visit our shores about the first of June when the mackerel are striking in. The schools are broken in and the fish striking off shore, thereby causing much loss to shore fishermen. He thinks the presence of one of the cutters at the time mackerel are appearing on the coast would have a wholesome effect and prevent the purse seiners from encroaching inside the three-mile limit. The increase in catch of cod and haddock is attributed to a more vigorous prosecution of the line fishing. The catch of lobsters, although one cannery less was running, shows an increase over the previous year. The percentage of fish sold in Canada and foreign markets, he estimates at 85 per cent, leaving about 15 per cent for home consumption. The close season in his district was well observed during the year. The only violations were connected with the lobster fishery when four packers were convicted in Fishery Court for taking illegal lobsters. There are no mills on the streams in his district, with the exception of a small shingle mill at Loch Lomond and one at Grand River. The Sawdust Act is well observed by the owners of the mills. There are no fish-ways in his district.

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VICTORIA COUNTY.

Overseer Wm. Hellen, of Aspy Bay, reports an increase in cod, haddock, hake, mackerel and salmon over the previous year. The increase is the result of these kinds of fish being more plentiful on the grounds than in the previous years. The catch would have been even larger were it not for the presence of dog-fish during the fishing season. He says had it not been for these destructive fish the fall mackerel catch would have been much larger at Aspy Bay, as fishermen were compelled to take up and repair their nets damaged by these ravenous fish. The herring fishery was a failure, there being a decrease this year of 91 barrels compared with the small catch of 1892. These fish did not strike in as in former years. The cause of their scarcity remains a mystery to fishermen. The salmon fishery was fairly good and had it not been for a severe storm which prevailed in June doing much damage to salmon nets the catch would have been larger. This fishery is capable of greater development, but the average local fisherman does not give it as much attention as some of the other branches.

The lobster pack was about the same as last year, notwithstanding there was one more factory engaged in packing. The fishermen in his district reported lobsters scarce throughout the fishing season. About 80 per cent of the total kinds of fish taken is marketed at North Sydney and Halifax. The balance is used for home consumption.

The regulations were well observed, there being no violations since his appointment. The Sawdust Act was well carried out, no refuse finding its way into the streams from any of the small mills. There is only one fish-way in his district, which is in good repair.

Overseer Donald McQuarrie, of Middle River, having an inland district the fishery is not very vigorously prosecuted. He reports a decrease in the catch of cod, herring and alewives and an increase in salmon, mackerel, oysters and the smaller kinds of fish. He assigns the cause of the decrease in cod to trawling by vessel fishermen. An effort was made at Gillis Point in the Bras d'Or Lakes to test the lobster grounds, where a small cannery was operated. The result was a failure. Lobsters were found large, but scarce. He finds it difficult to give accurate figures of the percentage of fish exported. Excepting what is used for home consumption, all the cod is marketed in Canada. All the oysters taken in his district and a third of the quantity of alewives were also marketed in Canada. He reports that the close seasons were well observed, and has no recommendations to make regarding the existing laws. The guardians he found vigilant and faithful to duty, and offenders who attempted to poach were discovered by them and dealt with in the Fishery Court. Both the Middle and Baddeck Rivers were teeming with parent fish during the spawning season, which were well protected by the guardians from poachers. There are no obstructions to fish ascending the upper waters from mills, and no refuse finds its way into the rivers or streams.

Overseer Chas. L. Campbell, of New Campbellton, reports a decrease in the catch of salmon of 117 brls.; herring, 1,047 brls.; mackerel, 229 brls.; cod, 1,312 cwt.; haddock, 197 cwt., and squid, 1,482 brls. There is an increase of 2,900 lbs. in halibut; hake, 140 cwt.; lobsters, 17,032 cans, and salmon, 800 cans. There were no halibut or salmon in cans last year. The cause of the decrease is scarcity of fish and the presence of dog-fish which interfered with gill-nets and trawls, and frightened the fish into deep water. Then again, in the vicinity of the entrance to Big Bras d'Or, a number of fishermen were employed during part of the season at the coal mines there which were opened up this year. To the extension of the season is to be attributed the increase in the catch of lobsters, particularly at South Bay, Ingonish, where this fishery was good during the whole season. One of the factories at Ingonish and the one at north shore were also engaged in canning salmon, but owing to the scarcity of fish, only a small quantity was put up. There were three fish-traps located in his district this season, neither one of which paid the cost of operating them. The cause is attributed to the scarcity of fish and unfavourable weather. There are no fish-ways, and no mills on any of the important fishing streams in his district. The close seasons have been well observed, and he reports that the guardians were vigilant in the discharge of their duties.

DISTRICT No. 2.

ANNUAL REPORT ON THE FISHERIES OF DISTRICT No. 2, NOVA SCOTIA, COMPRISING THE COUNTIES OF CUMBERLAND, COLCHESTER, PICTOU, ANTIGONISH, GUYSBOROUGH, HALIFAX AND HANTS, FOR THE YEAR 1893, BY INSPECTOR ROBT. HOCKIN.

Hon. Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit herewith my fifth annual report of the fisheries in District No. 2, province of Nova Scotia, together with tabulated returns showing quantities and values of each kind of fish caught, as well as comparative tables showing the increase and decrease of the fisheries in each county; also the increase and decrease of the catch of each kind of fish.

The improved statistical forms issued this year has resulted in a more accurate return of the value and number of nets, traps and other material used in prosecuting the fisheries.

The value of the catch within this district for 1893 was \$1,427,605 as compared with \$1,357,208, an increase in value of \$70,397.

This increase has been slightly affected by the fact that the new forms include some kinds of fish which had been previously overlooked, but only to the extent of about \$6,500.

In view of the greater care exercised in collecting these statistics during the past few years and which has resulted in the fluffiness being removed and the estimates given from a substantial basis of facts, I am of opinion that although the figures do not show the result as an average catch as compared with the past eighteen years, that nevertheless it has been an average year and perhaps slightly in excess.

Decreases are noted in the herring fishery of about 30 per cent, in the cod family of about 6 per cent, in shad of about 25 per cent, while there has been an increase in the catch of salmon of 25 per cent, of alewives 13 per cent, of smelts 15 per cent, and of lobsters of about 10 per cent.

The increase in the salmon fishery has been almost wholly in those counties bordering on the Bay of Fundy, where the catch has been unusually large and the largest recorded for the last fifteen years.

Of the Atlantic counties Guysboro' shows a decrease, 1,200 lbs., while in Halifax 8,500 lbs. have been taken in excess of the catch of last year.

In those counties bordering on the Straits of Northumberland a decrease of 2700 lbs. is recorded from Antigonish, while Pictou county returns an increase of 3,700 lbs.

In the herring fishery it is noted that while there is a decrease as compared with 1892 the catch has been about equal to that of 1891.

In the mackerel fishery the value of the catch was about equal to that of last year but this equilibrium was only maintained by an unusual catch of fall mackerel in the western part of Halifax county.

The increase of ten per cent in the value of the lobsters taken over last year is almost altogether from the Atlantic counties, indicating that the unusually favourable weather during the season when this fish may be legally taken has contributed in a large measure to this success and that it is not due to any increase in the fish.

It is gratifying, however, to observe that the season regulations have had the effect of staying the depletion of this fishery: but the effect of this success upon the fishermen has been upon the Atlantic coast to increase the tendency to violate the season regulations and catch lobsters in the autumn months, reasoning as they do that the restrictions of the regulations are unnecessary because the fish are not decreasing. Thus when the season is unsuccessful it is urged upon behalf of the

Fisheries Report.

fishermen that they must fish or starve—while the past season has shown they will fish under any circumstances, and it is only the strong arm of the law that will prevent them.

In the interest of law and order as well as of those who abide by the regulations, it seems to me to be necessary that neither expense nor pains should be spared to enforce the law.

Severe measures were adopted last season and a number sent to prison. The results of the labour of the fisherman should be rendered nugatory by having the cases containing legally caught lobsters stamped so that they could be identified and that all others be liable to confiscation.

This subject has been dealt with in former reports, but the necessity of adopting this method is becoming yearly more urgent because of the increasing tendency to illegal fishing.

It has been remarked by several of the overseers that in order to escape detection, salmon poachers disguise themselves by various means, burnt cork being a favourite method.

Torch lights on a river should be prohibited during the close season for salmon, except by permission from a fishery officer.

Spearing of eels, which is too frequently made an excuse for the appearance on the river with torch and spear, should be prohibited during October and November in this district.

In addition to fines inflicted on view by the overseers, the following have been tried before the Inspector :—

Six complaints for having lobsters in possession without lawful excuse.

Six complaints fishing for lobsters at a time prohibited by law.

Two complaints fishing for salmon at a time prohibited by law.

One complaint for fishing for salmon with a spear.

Six complaints for using a net or other apparatus for the capture of salmon above tidal waters.

One complaint allowing saw-dust to drift into a stream flowing into navigable water.

Five complaints allowing saw-dust to drift into a stream frequented by fish.

The complaints were in every case laid by the overseers.

Seven cases were dismissed for want of proof, and fines were inflicted in the others.

The work in connection with the Inspector's office during the past year has included the auditing of 300 accounts, examination of 1,600 reports, drawing plans and prescribing specifications for fish-ways, collecting bounty claims, holding courts and conducting correspondence in the several counties at which 27 cases were tried, covering 1,135 pages of the letter-book; also travel by highway 670 miles, by steamer 530 miles and by rail 5,313 miles.

The service rendered by the fishery guardians is paid in accordance with the actual time on patrol duty as certified by the overseers.

This system which has lately been brought into operation has been attended with good results and a fair return is given for the money spent, for the protection of the rivers.

Herewith follows a synopsis of the overseers' reports.—

Overseer Rowlings, of Halifax, says: There has been a decrease in the quantity of herring, mackerel, pollock and hake and a slight decrease in salmon and alewives. A considerable increase in cod and haddock and a large increase in the catch of lobsters.

Cod and haddock were as plentiful on the shore as they were for a number of years past, while the vessels which fish in North Bay returned with an average catch.

All the fish caught in his district are sold at Halifax, and he believes the greater part are shipped from there to the West India Islands.

The principal abuse has been the canning of lobsters. He has some doubts about the proper time for a close season, and thinks inquiry should be made as to the con-

dition of the lobster in the fall for canning purposes. He has seized and confiscated a number of cases of lobsters and has had a number of persons convicted for canning lobsters during close season, some have paid, others have been incarcerated, while some have yet to be dealt with.

The close season law should be vigorously enforced or else fishermen should be allowed to fish two months in the fall.

As to suggestions, he can give none better than has already been given, that fish caught in season should have a departmental stamp; all others confiscated.

With regard to close seasons other than that for lobsters, they have been well observed. The large mills cart out their saw-dust and the smaller ones wheel it out, although in every case a portion goes into the water.

There are seven fish-ways in his district and are fair of their kind, most of them being channels dug round the end of the dam.

A dam on the Lawrencetown River, owned by one Bayer, needs a fish-way very much.

He suggests that a most effective way of preventing illegal fishing would be to give one-third of the proceeds of all fish confiscated to the informer, one-third to the officer, and the balance to the department.

Overseer Bartlett, of Terence Bay, Halifax, says: In forwarding you statistics for 1893, I beg to report as follows:—

Compared with the previous year, there has been a slight increase in all and every variety of fish, more particularly salmon, trout, herring and mackerel.

During the month of September, about 1,800 barrels of mackerel were captured by seines in Prospect and St. Margaret's Bay. A storm immediately at hand prevented the catch being much larger.

About one-eighth of fish caught, mackerel excepted, is consumed in Canada, the balance being exported to United States and West Indies. Mackerel, I may say, are all shipped to the United States.

Regarding the amount of fish consumed at home, I may state, that except herring, few, if any other kinds of fish are kept from market.

I am, therefore, of the opinion, that our fishermen, on the whole are slightly better off than last year, though the price of fat mackerel is very low indeed.

The prices of other kinds of fish are about the same as last year.

From inspection and inquiry while at Hosier's River, I found the river completely blockaded with logs, refuse lumber and saw-dust, thus completely preventing the ascent of salmon and other fish into the lakes above the mill-dam.

Quite a large number of salmon visited the river during the season.

Would strongly recommend removal of obstructions above mentioned. Such removal would require fully twenty or twenty-five dollars, and as it is impossible to clear the river this autumn, it should be attended to early in the spring.

I further consider that river guardian be employed five months, viz., from April 1st to August 31st. This river requires considerable surveillance, as certain parties are inclined to poach.

At Big North East (Indian River district) saw-dust still continues a nuisance and should be removed. Fish-ways on Indian River in splendid condition and doing effective work.

That on Ryno-Dam should be raised fifteen inches, the mill-dam having been raised since fish-way was placed in the river.

On Melvin Dam, nine miles from mouth of the river, fish seem to collect, and being unable to ascend, poaching is carried on to a vast extent, thus requiring more time from the guardian (*Nathaniel Mason*) than he can bestow.

Little North East badly obstructed. The mill was burned some time ago, and the dam is therefore practically closed. If possible, owner of mill should be compelled to open the dam in order to clear passage-way for fish, salmon and trout especially.

I am pleased to state, that as nearly as at all possible the close seasons have been strictly observed, though there has been a strong tendency to encroach on the law's respecting lobsters but, sir, the law has, I may say, been strictly enforced.

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In conclusion, sir, I beg to say that I consider, one and all of the river guardians around St. Margaret' Bay, to be trustworthy and efficient officers.

Overseer Robert Gaston, of Pope's Harbour, Halifax, reports:—

There has been an increase in codfish and lobsters this year, a decrease in all others kinds of fish, the cause being a scarcity. Good prices obtained, all being sold in Canada.

There was illegal fishing, this came to my knowledge. I visited the localities several times but never could catch the parties in the act, as they had spies set everywhere. I destroyed all canning gear I found about the woods.

The Saw-dust Act was not observed by mill-owners and is not considered an injury to fisheries, but considered one to the harbour as it is filling up very fast.

There are four fish-ways in my division, all in good repair but the one at Moser's river.

Overseer Cameron, of Guysborough, reports the catch of salmon 27 per cent below that of last year, which, however, was exceptionally good; of herring, 25 per cent decrease. The fishermen say that these fish were plentiful outside, but were kept off shore by stormy weather and north winds. It is said these fish go with the winds, while mackerel go to windward.

Mackerel, a decrease of 24 per cent, mainly owing to the almost complete failure of the spring mackerel fishery.

The fish were as plentiful as heretofore, large bodies having gone into the Gulf of St. Lawrence, but they did not come on the coast as in former years.

The summer and fall fishery was fair and about equal to last year.

There was an increase in the catch of lobsters of about 10 per cent, ascribed to more favourable weather for fishing and more fishermen engaged in the fishery.

An increase of 11 per cent in cod, which were more abundant, and squid for bait plentiful.

Pollock have been very scarce for many years. About thirty years ago they were hauled with seines, and they appear to be again increasing.

Halibut are very scarce, but the catch this year is 50 per cent over last year's.

More smelts were taken because the steady cold weather of last winter made ice good. Squid were very abundant. Some vessels jigged all the bait they required and thus rendered trap-net fishing rather unprofitable.

Had there been a demand the catch could have been increased indefinitely.

WHERE MARKETED.

Salmon:	90	per cent	exported to United States.
	10	do	used for home consumption.
Herring:	95	do	sold in Canada.
	5	do	exported to United States.
Mackerel:	95	do	exported to United States.
	5	do	sold in Canada.
Lobsters,—	All exported.		
Cod and haddock:	90	per cent	exported to West Indies.
	10	do	sold in Canada.
Pollock,—	All exported.		
Smelts:	75	per cent	exported to United States.
	25	do	used for home consumption.
Alewives:	A few used for bait.		
	The bulk exported to West Indies.		
Squid,—	All used here.		
Fish oils:	75	per cent	sold in Canada.
	25	do	exported to United States.

The above are approximations. The exports of fish and fish products could be obtained more accurately from the customs entries outwards.

ABUSES.

Many of the fishermen ascribe the failure of the spring mackerel fishery to the operations of the United States purse seiners. The fishermen allege that mackerel are very timid and easily turned aside from their course; and they assert that by dashing at the mackerel with the purse seines they divert them from their course, drive them offshore and cause them to seek safety in deep water. Last spring the weather being fine and clear, the purse seiners were enabled to watch the mackerel and to keep along together with them from Cape Sable to Cape North; and our fishermen affirm that the mackerel adjacent to the coast and which would be likely to supply the inshore fishermen were driven off by the purse seiners. Our fishermen recommend as a remedy that the fishery protection cruisers come early on the grounds, say about the fifth day of May, that they join the American fleet at Cape Sable, and keep in company with it to Cape North, and that all along the coast they keep the purse seiners well outside the territorial waters of Canada. Our fishermen maintain that this is particularly necessary off the mouths of Chedabucto and St. Peter's Bays which were not entered at all this year by spring mackerel, although the purse seiners made good hauls. The cutters generally do not arrive until the mackerel and the fishing fleet have entered the Gulf of St. Lawrence: and after the spring trip the American seiners go home and do not return for some time. There may be something in this statement of the fishermen. One fact stands out clearly, —the fishery cruisers arrive too late. They should patrol the coast from the first appearance of spring mackerel and for about three weeks afterwards. They would thus prevent the illegal capture of mackerel within our waters, and at the same time greatly please the fishermen and abate the present grievance.

CLOSE SEASONS.

The several close seasons have been strictly observed. Special guardians have patrolled the principal rivers.

ILLEGAL FISHING.

But one case of illegal fishing came to my notice. And in this case, as there may have existed in the mind of the defendant a belief that he had a right to set his nets as he did, I was instructed that it would be sufficient for me to write him that nets so set are in violation of law and that it had been deemed advisable to suspend proceedings against him, but if set in the same way another time, he would be severely punished.

SAW-DUST ACT.

There is no attempt made by the mill-owners to prevent the saw-dust from falling into the streams; but the mills and streams being small, I do not think there is much injury done to the fisheries by the practice.

FISH-WAYS.

There are no fish-ways in my district. Some years ago there was one built in Chisholm's dam, Salmon River, but it is not there now. However, as the dam is situate fifteen miles from the river's mouth, and as there is a large lake down the river from the dam, I consider the spawning ground is ample. Clam Harbour and St. Francis Harbour rivers are the other two principal streams, and there are no mills upon them. Besides these three, the other streams are small and the dams are at a considerable distance from their mouths.

Overseer Allen McQuarrie, of Sherbrooke, Guysborough County, reports:—

His returns are carefully compiled from the most reliable sources, not so much from fish merchants as from the fishermen themselves.

It will be observed that the results do not differ materially from those anticipated in my preliminary report sometime ago.

Fisheries Report.

This year, he has to report a serious decrease in mackerel, herring and smelt, and a less one in cod, trout and salmon; he regrets having to report a shortage in our staple fish of over 70 per cent in mackerel, 69 per cent in herring and 46 per cent in smelt, and from 5 to 7 per cent in salmon, cod and trout. In mackerel, herring and smelt, the decrease is owing chiefly to the scarcity of fish, as neither kind appeared on the shore in quantities sufficiently numerous to justify the fishing for them either in summer or fall.

The rivers were unusually low in the early summer, and the salmon, trout and smelt did not visit our streams as plentifully as usual, but later on with a rise of water, large numbers were seen to ascend the rivers, and we look for returns to be more plentiful next year.

When cod fishing was at its best, the fishermen were lobstering, which proved very lucrative this season, as will be seen in the increase of 24 per cent canned lobsters, and after lobster fishing closed, the cod were at a greater distance from shore and the fishermen in their too eager pursuit of lobsters neglected their outfit for deep-sea fishing,—the larger boats have almost disappeared among them and the small lobster boats are insufficient to go out the distance necessary to secure codfish, consequently the decrease in cod.

There is also a decrease in trout and smelt as well as in salmon, and, I judge the cause to be low water and a less vigorous prosecution of the fishery.

I would suppose that about 75 per cent of our fish were exported; as much as 6 or 7 per cent used for home consumption.

About the only abuse that I am aware of and troublesome and expensive to contend with is in connection with the lobster fishery, the close season of which there appears a mania to violate. The preventive measures used are the cutters patrolling the harbours and coves and destroying traps, and a patrol guardian on shore scenting up information against the poachers; but both methods have signally failed in crushing it out, yet I believe all the poaching amounts to but very little, as the main factories are kept closed and giving no encouragement to the poachers. I believe all this poaching is more, a defiance of an unpopular law, than a desire to be or make it a profitable employment.

A better way, perhaps would be, of defeating these lawless violators and stopping their poaching, that all legitimate canned goods be labelled or branded by a Government officer soon after the season closes and they are cased up and ready for the market, and that afterwards, any cases that were found not so labelled or branded, would be liable to confiscation and a heavy penalty imposed on any party buying the same or having in possession. This would at once spoil the sale of the goods as being to risky to meddle with, and few, if any could afford the risk and delay of hiding them away until next spring. It has often occurred to me that the above plan could be made more effectual than the present mode, and it would at least take time to invent new tricks to evade the law, which they usually find out after a while.

There is an idea very common among the fishermen, that boat fishermen are not fairly dealt with in the distribution of the bounty, and that large boats are entitled to more bounty than small skiffs, in the same ratio with vessels, say boats from 13 to 17 feet, \$1.00; from 17 to 22 feet, \$1.50; and from 22 feet upwards, \$2.00. Embodying a proviso of this kind in the regulation would tend to overcome their hostility and convince them of the equity and justice with which the bounty was being distributed, the difference in amount would be only trifling, but it would be so much encouragement to build the larger boats for the deep-sea fishing, as our best fishery seem to be yearly receding farther from the shore and the large boats are now indispensable to the fishermen's success.

Another opinion that has a strong hold on them, is that vessels fishing beyond the three mile limit or out on the banks are receiving too much bounty, in fact are not entitled to any, while large boats are not getting enough.

I think in all fairness there should be some line drawn in paying the bounty between a 13 feet flat worth only \$10 and a large boat worth from \$150 to \$200.

I merely make the above suggestions to bring those matters before you as subjects warmly discussed by fishermen and worthy of your consideration.

The other close seasons have been well observed and much credit is due to the unceasing watchfulness of guardians who patrol the districts and make weekly reports of their doings.

There was no illegal fishing came to my notice this season, with the exception of a few undersized lobsters at Marie Joseph and Liscombe factories, where small fines were imposed and remitted to the department, as already reported.

Saw-dust and mill rubbish do occasionally annoy the salmon fishermen, but is chiefly accidental, as the exception, and not the rule, and considered by all as very injurious to the fishery.

In my division, there are only three fish-ways, two of the Rogers and one of the Hockin's patent; they are all kept in good working order by guardians who keep a close watch as to their efficiency to insure a free passage for fish.

The breach, at Indian Harbour has been closed up on several occasions this summer and for weeks at a time, which inflicts a perceptible injury on the fishery of this district.

There is a large brook, a tributary of the west branch of the St. Mary's at Smithfield, choked up with logs, stumps, and brush, forming a complete barrier to the passage of fish. It has been a famous resort for alewives and trout, and even salmon has been seen there, but of late years no fish has been able to overcome this obstacle. Probably \$20 would be sufficient to clear it out and I would like to see the amount granted.

Wine Harbour brook now affords an excellent passage for trout, alewives and smelt to the fine lake at its source, and the small expenditure made in clearing it out has been fraught with the best of results and a great boon to the inhabitants.

There are several lumbering dams on the west branch of the St. Mary's and its tributaries that should be furnished with fish-ways as soon as possible, for the streams are all frequented by fish, and Messrs. Miller & Co. are still building additional dams and obstructing the passage of fish in those streams without leave or permit.

I omitted in the proper place to mention the meagre yield of fish taken in the fish-trap at Nix's Mate. It proved an absolute failure, they did not realize enough to pay the \$40 license money.

The general scarcity of fish is the only cause they assign for the failure.

Overseer Allan McPhie, of Avondale, Pictou County, reports in his opinion fish-ways ought to be placed in all mill-dams across streams frequented by salmon or other sea-fish.

There has been an increase in the catch of salmon in this division, and a decrease in the catch of lobsters, cod, hake, and other fish.

He is unable to account for the falling off in lobsters but believes that stormy weather is the principal cause of the deficiency in cod, &c.

Nearly all the salmon, smelts, eels and lobsters are exported to the United States.

The close season has been well observed in this division. All the lobster canneries closed on or before the 6th of July.

Special guardians seized one salmon-net and three trout-nets during the present season. The names of the owners could not be ascertained.

The saw-dust law has not been well observed by mill-owners, and in his opinion much injury is being done to fish thereby.

There are no fish-ways in this division, and fish are prevented by dams from reaching the head waters. However, if fish-ways are built additional guardians will be required.

More special guardians are necessary, one at Upper French River, and one on the east branch of Barney's River; and in his opinion all torching ought to be prohibited during the time salmon are running up the streams.

Overseer John D. McQueen, Little Harbour, Pictou, says he has taken a good deal of pains with his report in order to have it accurate. The catch of fish in this division

Fisheries Report.

of the county has been about an average for salmon, herring, mackerel, while codfish has been more plentiful. Lobster were scarce at the first of the season but improved nearer the close. Codfish were plentiful on this shore during October and November, something never known before. There has been a good deal of poaching on the rivers during the months of October and November, and I find that it is a very difficult matter to protect the fish in spawning time. These outlaws come in numbers and always in disguise, so that it is impossible to identify without arresting, and one man cannot arrest one of three (or in many cases six) of these characters, as they are bad characters. The disposition to poach was more apparent this season than I ever witnessed since the date of my appointment. I would suggest that the law be so changed that any person found at a river (during the season when fish frequent for spawning) in disguise be arrested, fined and imprisoned, as the fact of a man being found there in such a condition should be regarded as an evidence of guilt. There is only one fish-way in his division, which has lately been constructed, consequently it is in good condition.

One person was fined by him for fishing for salmon in Sutherland River in October of last year. Two other cases were reported to the inspector for action.

The special guardians on Sutherland River have done their duty well and faithfully.

Regarding the Saw-dust Act it has been pretty generally observed by mill-owners. So far as he has been able to judge there has been due care exercised during the last year, as they were aware that any infringement would result in a fine.

Overseer John McDonald, of Doctors Brook, Antigonish County, says there has been a large falling off in the catch of cod and also of hake, particularly the latter.

At the first of the season hake were very plentiful and the prospects good until the storm of the 21st of August, after which date very few were caught.

It is the opinion of many, and in which he concurs, that the injurious effects of trawling are becoming visible.

Year by year since trawling began the fish are moving further from the shore.

Spring herring were very plentiful, but are not much fished, being only valuable for bait.

He has no violations to report. He had fined some persons for violation of the lobster regulations.

He urges the erection of a fish-way on the mill-dam at Middle South River, also in two mill-dams on the Bayfield River.

Overseer Davison, Little Bass River, Colchester County, says the catch of shad is the smallest since he has held office as fishery overseer, and again he urges that the depletion of this fishery is owing to the destruction of the gravid fish in the Shubenacadie River, that the present close season is not sufficient, but that instead, during the time these fish are in the river for spawning none of them should be caught.

There was a much larger catch of salmon than there has been for quite a number of years, the fish being larger and more even in size than they usually are.

Of other fish there has been an average catch.

Nearly all the fish caught were sold in the province of Nova Scotia, a very few in New Brunswick.

The close season has been pretty generally observed. Reports of illegal fishing have come under his notice which are being attended to.

Many of the large mill-owners use their saw-dust as fuel, no refuse is dumped into the water.

When the river is rapid and saw-dust deposited near the mouth, it is not considered to be injurious to the fisheries.

Some fish-ways of the old pattern formerly existed in the district; there are none now. Notices have been served upon mill-owners.

He would recommend five fish-ways: two in Five Islands, on the North and East Rivers, one in Bass River and two in Chiganvise River.

Overseer Pollock, of Stewiacke, in the county of Colchester, says there has been a large increase in the catch of salmon on the Stewiacke River. Last year, he returned 600 pounds, this year there were 3,000 pounds taken.

This he believes to be due to a better protection. After careful observation he believes the fish are almost all mature fish, and he can find no satisfactory evidence that the increase is the result of the hatcheries.

There was an increase in the gaspereaux. These fish are shipped to Halifax and sold for bait, as they arrive before other bait fish.

A larger number of shad were taken, owing to the condition of the river when they arrived. If when the shad come in the river for spawning purpose the season is wet and rainy and the rivers consequently high very few fish are taken.

The close season was well observed in tidal waters, but above there were violations of the law of which the guardians with himself had failed to get evidence to convict.

Three nets were taken out of the river and destroyed.

He had one complaint *re* saw-dust, and on notification the parties stopped at once. There is no injury done to the fisheries in his district by saw-dust.

There is but one fish-way in his district, which has just been finished; it appears to be efficient, but was put in too late to be of service last season.

On Green's Creek, at the head of the tide, is a dam about 15 feet high, which should have a fish-way, for this stream was formerly a famous one for gaspereaux.

Overseer George Gilroy, of Oxford, Cumberland County, reports a small increase in the catch of salmon and alewives, owing, however, to a more vigorous prosecution of the fishery.

All the salmon caught in his district are sold in Canada. Alewives are exported largely.

The close season has been fairly well observed, but in the close season for salmon there were quite a number of poachers to contend against, so much so that a third guardian was employed for a short time.

The guardians appointed proved faithful and trustworthy and have given the best satisfaction that has been given by any guardians since he has been overseer.

There were nine salmon nets seized and destroyed, eight by the guardians and one by himself, and evidence has been submitted which, it is expected, will convict one poacher, and two others were fined.

The Saw-dust Act is not being observed by the mill-owners, but no other mill refuse is allowed to drift into the stream. He does not think it is considered that much injury has been done to the fisheries by saw-dust.

There are six fish-ways in his district. Five of them are in good repair, but one on Black River has not been in repair for some time.

He has no suggestions to offer for the better protection of the fisheries, but he thinks that the close season for salmon should not commence until the middle of October, for they do not enter the river until about the first of September; they remain in the tidal waters until about the middle of October, and as the Act deprives the inhabitants of any participation in the fishery it is almost impossible to restrain them from violating the law.

As the conditions are quite different in these rivers from nearly all others on the Atlantic coast, he thinks some concession should be made.

Overseer Elijah Fowler, of Wharton, in the county of Cumberland, reports that there are several localities in his district from which returns of fish taken were formerly received, but last year owing to so many being engaged in the wood business, the fisheries were not prosecuted, notwithstanding that salmon were particularly plentiful.

All the fish taken in his division are used for home consumption.

Two persons were fined for violation of the fishery laws before the close season, and a number of mill-owners were fined for violation of the Saw-dust Act.

There are three fish-ways in his division, all in good repair.

Fisheries Report.

There should be at least six more built; and he is determined to see that this is done, for he believes that the want of fish-ways is more injury to the fisheries than the saw-dust.

Overseer Wm. B. Smith, of Maitland, Hants County, says the catch of shad is less by 50 per cent this year than last. Last year fifteen boats fished, this year only eight.

There has been a large increase in the catch of salmon, which were taken while drifting for shad.

Fish caught are all used for home consumption.

The Saw-dust Act was partially observed and what little gets in the river does not injure the fishing.

Overseer J. B. Colter, of Milford, Hants County, says about half of the fish taken in his district are sold in Halifax and the balance are used for home consumption.

There was an increase in the catch over that of last year. Had the water not been so high he believes there would have been more fish taken than has been for thirty years.

No violations of law have come to his notice. The Saw-dust Act has been observed. There are no fish-ways in his district.

I have the honour to be, sir,

Your obedient servant,

ROBERT HOCKIN,

Inspector of Fisheries.

DISTRICT No. 3.

ANNUAL REPORT OF THE FISHERIES OF DISTRICT No. 3 OF NOVA SCOTIA, COMPRISING THE COUNTIES OF KING'S, ANNAPOLIS, DIGBY, YARMOUTH, SHELBURNE, QUEEN'S AND LUNENBURG, FOR 1893, BY INSPECTOR J. R. KINNEY.

YARMOUTH, N.S., 31st Dec., 1893.

Honourable Sir CHARLES H. TUPPER,
Minister of Marine and Fisheries.

SIR,—In submitting the customary annual fishery statistics, I beg to call your attention to the decrease in the value of the products. This shortage being attributable to the lessened take of cod, herring and mackerel; these three items when compared with the products of 1892, standing thus :

Cod.....	short	38,932 cwt.
Herrings	"	16,231 brls.
Mackerel	"	10,240 brls.

This loss is to a considerable extent made good by the increased catch of lobsters, alewives and salmon; these items standing thus :

Lobsters, shipped alive..	increase	1,450 tons.
" preserved	"	55,138 cans.
Alewives.....	"	4,971 brls.
Salmon.....	"	28,187 lbs.

I have the reports of the several overseers of the district, but fail to gather from them any data other than conjectures as to the causes for the increased take of one kind of fish and the almost total failure of others.

LOBSTERS.

The increased take may be attributable to two causes: first, the increased number of those employed in the industry; and secondly, the fishermen have learned the once popular idea that these fish were to be taken only in inshore waters, has been exploded, hence this branch of fishing is now largely conducted miles at sea.

The present fishery regulations are satisfactory, with, of course, the exceptional cases—one of which is that in some localities where winter fishing cannot with any degree of success be carried on—the fishermen do not feel satisfied that others more favourably located shall reap the good results of the good prices obtained in the early part of the year.

It is regrettable that many of the packers buy and pack the "berried" fish. In this connection I would again urge that the packer be licensed, such license to be cancelled upon proof of wilful violation of the regulations.

ALEWIVES.

The aggregated take of this fish in the counties of Annapolis, King's and Yarmouth has nearly doubled that of 1892, whilst the other counties report no marked increase. The rivers Tusket, LeQuille and Gaspereaux show the greatest increase. The county of Shelburne, where considerable sums of money have been expended in clearing the streams of obstructions upon the assumption that such a course would prove a benefit to the alewives fishery, has shown no marked improvement.

Fisheries Report.

MACKEREL AND THE COD FAMILY.

Shad a decided decrease. The autumn run of mackerel not making their appearance and the run of spring fish being a slim one.

SALMON

Exhibit a phenomenally large run in King's County, but not at the mouths of the rivers. In this county the increased take was 200 per cent over the catch of 1892. And in the county of Digby the increase was 300 per cent, whilst Shelburne exhibits a shortage. The take on the Clyde falls short about 50 per cent.

I add hereto a few condensed extracts from the reports of the overseers.

Overseer R. F. Reid, Wolfville, in regretting that the salmon fishery on the Gaspereaux River is not as productive as desired, is inclined to believe that the large take of salmon in the bay, is attributable to the "planting" of former years.

Overseer J. S. Miller, Canning, says: "The coves were swarming with young salmon, as many as 300 to 400 being taken at one tide. These fish weigh from 5 to 7 pounds each, and it is thought that they are the product of the hatchery."

Overseer W. M. Bailey, Roundhill, says: "I would suggest that the law in regard to shad and alewives be so changed that no nets be allowed to be set after 10th of June in the municipality of Annapolis." His reasons for this suggestion are that under cover of fishing for shad and alewives the fishermen take salmon, but I think that the size regulation for nets is a sufficient protection. Overseer Bailey states that whitefish and salmon-trout, the product of the Bedford hatchery are making their appearance in his district.

The overseers state generally that the regulations have been fairly observed, the exception being the too frequent violations of the lobster-fishing regulations.

In concluding this report, I beg to state that a very undesired phase of the lobster business has been developed by the speculator who having on hand on the 1st of July lobsters legally taken hands them over for the purpose of obtaining better prices. The temptation to illegally fish and claim that the fish on hand were caught before the 1st July is too much of a strain on the average fisherman, hence the law is violated. It would, I believe, be wise that the words of the regulations be changed by striking out the words "without lawful excuse" and after the words "any lobsters" add "unless preserved."

I am, sir, your obedient servant,

J. R. KINNEY,
Inspector of Fisheries.

NOVA SCOTIA—DISTRICT No. 1.

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, Fishing Materials, and the Kinds and Quantities of Fish, as well as the Number of Men employed in the Fishing Industry of the Province of Nova Scotia, for the Year 1893.

Number.	DISTRICT.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.				KINDS OF FINDS.					
		Vessels.		Boats.		Gill-Nets.		Seine.		Salmon, fresh in ice, lbs.	Herring, salted, brls.	Herring, fresh or frozen, lbs.	Mackerel, salted, brls.	Mackerel, fresh or preserved (in cans), lbs.	Number.		
		No.	Value.	No.	Value.	Fathoms.	Value.	No.	Fathoms.							Value.	
			\$		\$				\$								
1	Cape Breton County.																
2	From False Bay Beach to Long Beach			70	1716	96	3460	894		948	120	3400	70	600	1		
3	From Long Beach to Glace Bay and Bridgeport			5	250	10	620	165			15	1000	3	200	2		
4	From Lingan to South Bar and Sydney River			69	1030	87	3400	1146		1104	153	3000	10	800	3		
5	From Sydney to North-west Arm, Sydney Forks and Lake.			53	623	64	2200	550		550	80	24000		400	4		
6	Grand Narrows' Bridge to Christmas Island and George River			35	450	75	970	470		500	175		20		5		
7	Little Bras d'Or			15	180	30	500	275		175			6		6		
8	Sydney Mines and Big and Little Ponds	6	87,1700	28		110	3112	990			225		37		7		
9	North Sydney and Ball's Creek	1	17,300	5		26	1000	550		1500	150		10		8		
10	Louisburg					17	1650	780		50	150		20		9		
11	Big Lorraine					46	2000	3325			300		640		10		
12	Little Lorraine					37	1880	8200			370		480		11		
13	Bauline					17	850	1500		800	170				12		
14	Main-à-Dieu					14	420	575		4	62		80		13		
15	Mira Bay and River					40	2000	3925		3	85		390		14		
16	Kennington Cove					64	1920	6500		10	110		60		15		
17	Scattare Island					8	160	625			30		60		16		
18	North side of East Bay					15	1400	450			20		54		17		
19	Eskasoni					20	240	600			87		2		18		
20	Benacadie					22	220	169			57		1		19		
						26	260	380			96				20		

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, Fishing Material, &c.—Nova Scotia—Con.

Number.	District.	KINDS OF FISH.										FISH PRODUCE.				TOTAL VALUE.	Number.					
		Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Hake, dried, cwt.	Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Haitout, lbs.	Smelts, lbs.	Alwivers, brls.	Bels, brls.	Shad, brls.	Squid, brls.	Tom-cod or Frost Fish, lbs.	Coarse and Mixed Fish, brls.			Fish Oils, galls.	Seal Skins, No.	Fish used as Bait, brls.	Fish used as Man-ure, brls.	Fish Guano, tons.
<i>Cape Breton County.</i>																						
1	From False Bay Beach to Long Beach	47416	798		92	300	500	3000	1800	15	35				2049		224		67	16,977	44	1
2	From Long Beach to Glace Bay and Bridgeport		120		30		1500	2500	2000	10	20	5			125		63			1,700	50	2
3	From Lingan to South Bar and Sydney River.	10656	585	1	30		400	5200	2500	2	20				313		156		11	6,943	34	3
4	From Sydney to North-west Arm, Sydney Forks and Lake.		30				2000		3000	90	30				10		10			2,027	00	4
5	Grand Narrows Bridge to Christmas Island.		1200		150		375		800	100	10				600		300			8,410	00	5
6	Boisdale and George River		380				300		400	35	4				175		80			2,536	50	6
7	Little Bras d'Or.	41200	2150		275		270	1600		50	10				800		625			20,374	25	7
8	Sydney Mines and Big and Little Ponds		350		70			450		25	5				70		60			3,290	50	8
9	North Sydney and Ball's Creek.		375		60			650	800		8				125		75			3,210	00	9
10	Louisburg	28032	1000		382	20		100	150						600		120			20,088	98	10
11	Big Lorraine		1200		312	10		80							700		110			15,460	00	11
12	Little Lorraine		680		150	8		100		20	2				300		51			4,994	50	12
13	Eauvine.		320		130	6		70							160		42			3,502	00	13
14	Main-à-Dieu	49440	500	20	230	30		210		30	10				480		120			13,012	60	14
15	Mira Bay and River		500	20	140	20	430	240	600	210	6	3			260		110			12,174	00	15
16	Kennington Cove		120		32	10		90							60		24			1,738	00	16
17	Scattarie Island.		1350		275	30									600		45			8,321	00	17
18	North side of East Bay		40				100			5	25				20		3			739	50	18
19	Eskaconi		78				200		1000	12	71				30		6			1,462	50	19
20	Benacadie.		96				100		400	3	2				100		10			972	50	20
21	Piper's Cove to Grand Narrows.		290						500	8					100		40			1,836	00	21
22	Fork's Lake									10	5									95	00	22
23	South side of East Bay		62				50		300	22	8				20		6			910	50	23
24	Grand Mira						400		800	100	5									774	00	24

Fisheries Report.

31 Belle Cote	2483	28	100	208		247	16	20	90400	2130	140	20,094	50	31	
32 West side Margaree Harbour.	1520	85	420	157		120	5	6	11600	975	125	20,302	15	32	
33 Margaree River					1200	831	4					4,005	50	33	
34 Margaree Forks.					500	740						3,478	00	34	
35 Margaree Island.	150	19		39				30	40300	740	85	5,385	40	35	
36 Broad Cove Marsh.	114			28				8	31000	490	116	5,373	95	36	
37 Broad Cove Shore	69			18				3	8000	200	20	909	50	37	
38 Coal Mines and Whale Cove	25			7					500	45	113	2,057	40	38	
39 Lake Outlet and Loch Bain.					700	140	29					2,090	00	39	
40 Trout Brook and East Lake.					10200	15		500		5230	66	1,087	50	40	
41 Eastern Harbour	13640	75		90						2800	40	82,542	25	41	
42 Cheticamp Point	3600	60		180				80		40	13	24,206	00	42	
43 Cape Rouge.	20			20				120		880	5	8,932	65	43	
44 Grand Etang.	2080	30	100	10				100		300		25,737	37	44	
45 Friar's Head	900	50		20				50		60		8,801	00	45	
46 Doucet's Cove	120									50		3,668	00	46	
47 Pleasant Bay	100									50		9,848	16	47	
Totals	29702	30	1394	1420	1700	10	2282	1050	220000	39	17475	124	1742	80	
Value.	\$133659	300	4182	710	3950	30	10814	3150	6450	5588	117	6990	155	2613	40
															08
															857,753
															88

RETURN showing the Number and Value of Vessels and Boats engaged in

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.					KINDS		
		Vessels.			Boats.			Gill Nets.		SALMON.			MACKEREL.		
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Salted, lbs.	Fresh in ice, lbs.	Herring, salted, brls.	Salted, brls.	Fresh or pre-served (in cans), lbs.
	<i>Richmond County.</i>			\$			\$		\$						
1	Arichat	10	268	5360	40	66	792	54	10725	4290		900	408	118	1080
2	Petite de Grat	4	98	1960	21	116	1392	147	26550	10620			2215	348	
3	Cape Hoquet					75	780	85	10500	4200			730	132	
4	West Arichat	4	132	2640	13	191	1290	106	21625	8650			822	128	
5	Rocky Bay					45	540	65	12600	4640			497	92	
6	D'Escousse	7	230	4600	55	54	648	14	2960	1480			280	535	
7	Lower D'Escousse	10	468	9360	119	129	1548	37	4760	2380			288	187	
8	St. Peter's	2	50	600	9	16	250	20	3200	800			50	12	
9	River Bourgeois	21	514	9500	150	18	125	21	3000	1100			360		
10	Grandigue and Port St. Lewis					21	400	42	5600	1750			250	50	
11	River Inhabitants and Basin	4	131	1300	17	94	1000	129	25700	6500			1200	250	
12	Port Malcolm and Gut of Canso	4	146	2350	20	63	630	88	8000	3000			725	175	
13	West Bay					90	900	180	5000	2000	10		400		
14	Grand River					26	780	53	9360	1872		1500	182	240	
15	Point Micheau					21	400	43	6300	1260			105	135	
16	Lower L'Ardoise	1	11	200	2	67	1300	120	13000	2600		2122	450	400	
17	L'Ardoise	1	11	150	3	73	2000	150	13140	2628			800	480	
18	Rockdale					34	680	75	6800	1350			480	200	
19	Grande Grève					15	300	28	3000	600			90	60	
20	St. Peter's					13	200	26	2800	560			74	50	
31	L'Archevêque					13	260	28	3800	760			30	100	
22	Framboise					14	350	33	1500	300			50	130	
23	Fourchu					21	800	60	3000	600			100	120	
24	Indian Reserve					8	300	21							
	Totals	68	2059	38020	449	1283	17665	1625	202920	63950	10	4522	10586	3942	1080
	Value	\$									160	904	47637	55188	129

Fisheries Report.

the Fisheries, Fishing Materials, and the Kinds, &c.—Nova Scotia—Con.

OF FISH.														FISH PRO- DUCTS.		TOTAL VALUE.		Number.	
LOBSTER.		COD.		Haddock, cwt.	Pollock, cwt.	Halibut, lbs.	Sneets, lbs.	Alewives, brls.	Clams, brls.	Eels, brls.	Squid, brls.	Flounders, lbs.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish used as bait, Brls.				\$	cts.
Preserved in cans, lbs.	Alive or fresh, tons.	Dried, cwt.	Tongues and sounds, brls.													Hake, dried, cwt.	Haddock, cwt.	Pollock, cwt.			Halibut, lbs.	Sneets, lbs.	Alewives, brls.	Clams, brls.	Eels, brls.	Squid, brls.	Flounders, lbs.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish used as bait, Brls.	$	cts.
9600	39	945	30	174	60				1	27		30			464		12,305	20	1
82416		1620		764	200					5	25	24			73		37,346	94	2
33456		804		695	60				1								16,051	84	3
58696		965		267	22				158	4	1	7			150		19,884	44	4
		272		103	12				9								5,185	50	5
		1787		35				801	17	24		7	3500		527		17,588	35	6
72000		4780		137	2	1500		250		167		24	13800	20	2310		38,924	00	7
		570	3								5				200	20	3,148	00	8
24290		8200		200							10				3000	100	44,070	60	9
		100						14000	25		100				75		4,117	50	10
		5400		250				2900	750		15				450	20	37,955	00	11
		3200		100					410						600	55	23,638	00	12
7200		500							10		10				160	10	4,434	00	13
		180		10					14		10				90	25	5,560	50	14
		150		45	6				10						75	30	3,333	00	15
		960		500	25				25		10				480	150	14,823	90	16
33600		1400		800	30				128		8				700	150	25,375	00	17
33688		400		150	10				120						200	100	12,801	32	18
		80		50	8				15		6				40	60	2,037	50	19
		60		60	10				20						30	50	1,720	00	20
40000		70		10	5				10		14				35	100	7,849	00	21
		75							18		12				37	40	2,658	30	22
128600		1000		400	10				20						1500	200	27,054	00	23
		260		50	32				10		20				130	20	1,768	00	24
523546	39	33778	3 30	4800	492	1500	17951		1771	227	246	92	17300	20	11326	1130			
73296	1560	152001	30 90	16800	1476	150	897		7969	1362	2460	368	865	60	4530	1695	369,629	.89	

Fisheries Report.

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, &c.—Nova Scotia—Con.

Number.	DISTRICTS.	KINDS OF FISH.										FISH PRODUCTS.			TOTAL VALUE.	Number.			
		Hake, dried, cwt.	Hake, sounds, lbs.	Haddock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Alwives, brls.	Oysters, brls.	Eels, brls.	Squid, brls.	Tom cod or frost fish, lbs.	Coarse and mixed fish, brls.	Fish oils, galls.			Seal-skins, No.	Fish used as bait, brls.	
<i>Victoria County.</i>																			
1	Meat Cove.....			12											180	20	36	\$ 2,309 50	1
2	Wreck Cove.....			8											160	7	28	2,018 25	2
3	Burton's Beach.....			5											100	15	15	1,237 25	3
4	Bay St. Lawrence Pond.....			40											525	32	90	6,743 00	4
5	North Harbour.....			30	1800	1500									400	7	120	8,970 75	5
6	Middle Harbour Head.....			2											20	3	8	647 25	6
7	Black Head.....														5	6	2	211 50	7
8	White Point.....	80				1000									1220	35	168	15,877 75	8
9	New Haven.....	12		150											1225	40	280	15,053 64	9
10	Neil's Harbour.....	10		140											30	15	240	16,978 31	10
11	Green Cove.....	6		50											505	19	100	6,123 75	11
12	North Bay, Ingomish.....	25		430											2500	130	250	22,765 72	12
13	Big Bras'd'Or, New Campbellton and Bird Island.....	10	10	30	400	400			5	50					200		50	2,481 80	13
14	Englishtown and St. Ann's.....	150	100	50	1000	1000			30	30					200		50	5,450 00	14
15	North Shore.....	50	50	50	1000	300				5	20				40		100	7,682 00	15
16	South Ingomish.....			140	500					15	50				80	20	100	21,580 00	16
17	Nyanza.....				2200					9	31				725	3	2	1,474 84	17
18	Backdeck and Piaster.....				1506					22	58				720	4	18	2,578 25	18
19	Boularderie and Kempt Head.....			10	150					10	5				450	4	12	1,481 15	19
20	Grand Narrows.....				518					46	1273	76			1300	15	686	15,027 00	20
21	Washabuck and Gillis Point.....				750					30	80	26			800	6	46	2,979 10	21
22	Little Narrows.....				650					58	198	21			900	4	30	2,705 15	22
	Totals.....	343	160	1237	7574	5400	10780		261	1653	230	170	4895	488	9692	349	1821	162,325 96	
	Value.....	\$1029	80	4329	757	540	539		1174	4959	2300	630	245	1464	3877	436	2731		

RECAPITULATION

Of the Yield and Value of the Fisheries of the Island of Cape Breton for the Year 1893.

Kinds of Fish.	Quantities.	Rate.		Value.	
		\$	cts.	\$	cts.
Salmon, pickled.....	Brls. 254	16	00	4,064	00
do fresh.....	Lbs. 120,281	0	20	24,056	20
do preserved.....	" 4,592	0	15	688	80
Herring, pickled.....	Brls. 22,017	4	50	99,076	50
do fresh and frozen.....	Lbs. 227,000	0	01½	2,837	50
Mackerel, pickled.....	Brls. 12,509	14	00	175,126	00
do preserved.....	Lbs. 11,622	0	12	1,394	64
Lobsters, preserved.....	" 1,211,970	0	14	169,675	80
do fresh.....	Tons. 39	40	00	1,560	00
Cod, dried.....	Cwt. 98,871	4	50	444,919	50
Cod tongues and sounds.....	Brls. 38	10	00	380	00
Hake, dried.....	Cwt. 1,738	3	00	5,364	00
do sounds.....	Lbs. 1,580	0	50	790	00
Haddock, dried.....	Cwt. 10,179	3	50	35,626	50
Pollock, dried.....	" 956	3	00	2,868	00
Trout, fresh.....	Lbs. 52,359	0	10	5,235	00
Halibut, fresh.....	" 26,880	0	10	2,688	00
Smelts, fresh.....	" 81,781	0	05	4,089	05
Bass, fresh.....	" 200	0	06	12	00
Alewives.....	Brls. 5,071	4	50	22,819	50
Oysters.....	" 2,734	3	00	8,202	00
Clams.....	" 227	6	00	1,362	00
Eels.....	" 1,386	10	00	13,860	00
Shad.....	" 8	10	00	80	00
Squid.....	" 1,816	4	00	7,264	00
Flounders.....	Lbs. 17,300	0	05	865	00
Tom cods.....	" 5,495	0	05	274	75
Coarse and mixed fish.....	Brls. 555	3	00	1,665	00
Fish oils.....	Galls. 46,730	0	40	18,692	00
Fish as bait.....	Brls. 7,473	1	50	11,209	50
Fish used as manure.....	" 155	0	50	77	50
Fish guano.....	Tons. 80½	25	00	2,018	75
Seal skins.....	No. 1,098	1	25	1,372	50
Dogfish.....	Lbs. 220,000	0	01	2,200	00
Total.....				1,072,414	89
Total for 1892.....				1,047,042	35
Increase.....				25,372	54

Fisheries Report.

TABLE showing the Number and Value of Vessels and Boats, Nets, Seines, &c., engaged in the Fisheries of the Island of Cape Breton, and the approximate Estimate of the Value of other material not included in the Statistical Returns for 1893.

Materials.	Value.
	\$ cts.
90 Vessels, 2,541 tons	48,470 00
3,709 Boats	72,525 00
385,653 Fathoms of nets	146,999 00
54 Canning establishments	42,775 00
87,062 Lobster traps	78,900 00
Hand lines, trawls, &c	30,000 00
Fishing piers, houses and other sundries	77,842 00
Steamers, smacks, dories, canoes, &c	10,600 00
35 Smelt nets	3,550 00
Fish traps and weirs	2,610 00
6 Seines	2,810 00
Total	517,081 00

NOVA SCOTIA

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in and the Total Number of Men employed, &c., in the

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.				Salmon, fresh, in ice, lbs.	Herring, salted, brls.	Herring, smoked, lbs.	
		Vessels.			Boats.			Gill-Nets.		Weirs.					
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Number.				Value.
	<i>Antigonish County.</i>			\$		\$		\$	\$						
1	Harbour Boucher, Linwood and Tracadie	1	10	100	3	63	924	79	188700	1690			700	700	
2	Bayfield, Monk's Head and south side Antigonish Harbour					42	1012	53	11950	1890			13000	102	
3	Morristown and Lakeville.					27	388	38	11710	1369	1	10	10250	213	
4	Ballentyne's Cove and Cape George					25	497	40	11750	1152			6000	206	
5	North Cape and Georgeville					25	350	41	8800	609				121	
6	Malignant Cove, Doctor Brook, Arisaig, Moidart and Knoidart					40	574	54	12980	1526			11400	170	
	Totals	1	10	100	3	222	3745	305	245890	8236	1	10	41350	1512	
	Value			\$									8270	6804	
	<i>Colchester County.</i>														
1	Sterling					17	220	19	520	220					
2	Stewiacke					35	210	54	405	281			3900		
3	Five Islands					8	220	16	400	34			1400		
4	Economy					8	240	16	2675	565	7	4850	11695		12000
5	Little Bass River to Highland Village					12	350	27	3200	505	7	1225	14952		
6	Grand Village to Queen's Village					17	570	34	5625	760			29205		
	Totals					97	1810	166	12825	2365	14	6075	61152		12000
	Value			\$									12230		240

Fisheries Report.

DISTRICT No. 2.

the Fisheries, Quantity and Value of Fishing Material, Kinds and Quantities of Fish, Province of Nova Scotia for the Year 1893.

KINDS OF FISH.													FISH PRODUCTS.			VALUE.	Number.		
Mackerel, salted, brls.	Mackerel, fresh or preserved, in cans, lbs.	Lobsters in cans, lbs.	Cod, dried, cwt.	Hake, dried, cwt.	Hake, sounds, lbs.	Haddock, cwt.	Trout, lbs.	Haitbut, lbs.	Snelts, lbs.	Bass, lbs.	Alewives, barrels	Oysters, barrels.	Fels, barrels.	Shad, barrels.	Fish oils, galls.			Fish used as bait, brls.	Fish used as manure, barrels.
226	75456	183	....	9	22	1000	....	1630	....	46	165	15	....	99	307	75	19,495	1
69	19200	19500	10	....	....	....	700	....	900	....	....	31	116	....	5	74	20	10,595	2
58	29000	52	41	116	5	....	....	135	1295	27	....	10	....	68	129	30	8,855	3
76	37500	143	310	893	7	....	....	....	....	49	....	....	....	420	210	38	11,209	4
75	10000	241	646	2239	38	....	....	....	....	4	....	....	....	1027	239	10	8,060	5
87	54000	83	278	332	5	800	....	480	500	6	....	....	....	362	117	55	13,722	6
591	19200	225456	712	1275	3589	77	2500	....	3145	1795	132	196	141	....	1981	1076	228		
8274	2304	31564	3204	3825	1795	270	250	....	157	107	594	588	1410	....	792	1614	114	71,936	
....	32230	....	....	....	....	....	....	14000	....	....	....	....	....	....	90	....	5,347	1
....	190	....	....	....	3200	....	....	1000	65	....	....	44	....	....	....	1,893	2
....	2950	....	....	....	....	....	3	180	24	....	1,568	3
....	49	....	....	....	3,069	4
....	69	....	....	....	3,680	5
....	105	....	....	....	6,891	6
....	32230	190	....	....	....	3200	2950	14000	1000	65	....	....	270	180	114	....	
....	4512	855	....	....	....	320	295	700	60	293	....	....	2700	72	171	....	22,448	

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged

No.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.					Salmon, fresh, in ice, lbs.	Herring, salted, barrels.
		Vessels.			Boats.			Gill Nets.		Seines.				
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Fathoms.			Value.
	<i>Cumberland County.</i>			%		%			%		%			
1	Pugwash, Port Philip and Gulf Shore.....				133	4,295	133	824	322					
2	Wallace.....				4	50	5							
3	River Philip to Tidnish.....				9	130	14	404	455				5,400	
4	LaPlanche and Nappan.....				1	50	3	110	55				820	
5	Minudie to Apple River.....							568	300				500	
6	Advocate.....				7	147	15	100	50					99
7	Spencer's Island.....				6	272	18	88	40	1	46	50		41
8	Port Greville.....				4	115	12	90	45				3,000	47
9	Parrsboro'.....				8	455	15	265	107				2,100	46
	Totals.....				172	5,514	215	2,449	1,374	1	46	50	11,820	233
	Value.....\$												2,364	1,048

Fisheries Report.

in the Fisheries, Quantity and Value of Fishing Material, &c.—Nova Scotia—Con.

KINDS OF FISH.												FISH PRODUCTS.		TOTAL VALUE.		No.
Mackerel, fresh or preserved, in cans, lbs.	Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Hake, dried, cwt.	Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Smelts, lbs.	Alewives, barrels.	Oysters, barrels.	Eels, barrels.	Shad, barrels.	Fish used as bait, barrels.	Fish used as Manure, barrels.	\$	cts.	
400	479,365						45,900	10	50			990		71,134	00	1
						1,000	20,000	300	300					3,250	00	2
							4,760	528						3,966	00	3
							2,000	164						1,770	00	4
		81	23	10	5		2,000	23				170		2,003	00	5
		73		29	44		350							1,039	00	6
		91		57	30		1,500							765	00	7
		30		5	8		1,200							1,585	00	8
														864	00	9
400	479,365	275	23	101	87	1,000	78,910	1,025	1,050	25	244	990				
48	67,111	1,238	69	354	261	100	3,946	4,612	350	250	2,440	1,485		86,376	00	

Fisheries Report.

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, Fishing Material, &c.—Nova Scotia.—Con.

Number.	DISTRICTS.	KINDS OF FISH.												FISH PRODUCTS.			TOTAL VALUE.	Number.			
		Cod, dried, cwt.	Hake, dried, cwt.	Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Alwates, brs.	Clams, brs.	Reis, brs.	Shad, brs.	Squid, brs.	Founders, lbs.	Tom Cod or Frost Fish, lbs.	Coarse and Mixed Fish, brs.			Fish Oils, galls.	Fish used as Bait, brs.	Fish used as Manure, brs.
<i>(Guysborough County.)</i>																					
1	Ecum Secum	95	10	75	15	2200	350	460	15	60	..	..	12	400	..	..	50	390	120	6,203 00	1
2	Marie Joseph	360	25	25	16	1400	490	700	..	90	25	..	16	200	460	..	280	460	250	11,183 00	2
3	Liscombe and Spanish Bay	1370	..	120	40	1400	2800	96	210	30	..	..	15	450	..	..	750	820	400	23,717 00	3
4	Geoggin Harbour and River	120	5	20	5	1200	700	900	10	15	8	..	10	160	200	..	65	180	10	2,437 00	4
5	St. Mary's Bay and River	400	20	60	10	6800	1500	3000	48	26	20	600	5	100	150	..	200	460	200	19,174 00	5
6	Wine Harbour	75	..	40	20	800	900	1200	12	15	13	..	20	500	280	..	40	260	50	4,464 00	6
7	Port Hillford	150	15	20	6	7000	550	1000	15	30	9	..	20	400	280	..	80	360	120	8,858 00	7
8	Holland's Harbour	150	..	25	7	7000	400	900	5	28	6	..	13	250	125	..	75	215	..	3,998 00	8
9	Beckerton	350	..	20	..	..	500	900	10	40	16	..	20	610	175	..	200	200	180	14,855 00	9
10	Fisherman's Harbour	435	25	10	5	700	410	1200	5	40	20	..	18	800	260	..	270	280	20	5,836 00	10
11	Country Harbour and Isaac's Harbour	460	80	25	8	5500	300	1400	20	60	15	..	20	947	200	..	260	360	150	16,982 00	11
12	From Isaac's Harbour to New Harbour	960	5	294	252	1700	4010	3100	29	..	21	..	25	..	300	233	1881	736	100	36,781 00	12
13	New Harbour to Whitehead	6875	30	1300	160	4500	6520	2200	600	..	190	..	300	133	500	623	7708	1600	315	137,513 00	13
14	Whitehead to Canso, including Tittle	3600	..	1250	80	300	2000	..	100	..	60	..	2250	..	..	334	3740	1360	700	96,515 00	14
15	Canso to Salmon River	2800	45	788	40	1900	..	3000	50	..	10	..	4000	..	..	483	3805	1200	200	81,333 00	15
16	Salmon River to County Line, including Cook's Cove, Guysboro', North Shore and Strait of Canso.	3080	65	842	25	2300	..	11390	510	..	40	..	1200	..	..	820	5602	1100	60	123,292 00	16
Totals		21280	325	4914	683	37000	20730	33350	1525	614	483	600	7494	4950	2750	2493	25096	9881	2875		
Value		95760	975	17200	2049	3700	2073	1677	6864	4298	4830	6000	31736	245	137	3740	10038	14972	1438	593,141 00	

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, &c.—Nova Scotia—Continued.

Number.	FISHING VESSELS AND BOATS.				FISHING MATERIAL.				KINDS OF FISH.										
	Vessels.		Boats.		Gill-Nets.		Trap-Nets.		Seines.		Salmon, fresh, in ice, lbs.	Salmon, smoked, lbs.	Herring, salted, brls.	Herring, fresh or frozen, lbs.	Mackerel, salted, brls.	Mackerel, fresh or preserved, in cans, lbs.	Lobsters, preserved in cans, lbs.	Lobsters, alive or fresh, tons.	Number.
<i>Halifax County.</i>																			
1			116	1880	158	12000	1850	3	300	60	6000	5800	3500	65	770			14	1
2	38	350	6	151	2250	135	12500	2000	6	600	38	3600	4800	120	350			3	2
3	62	1550	20	216	3400	208	32200	4850	5	900	29	2875	4200	2140	608	6500		13 ²	3
4	10	180	3	49	980	46	7000	1750			8	800	1600	463	3000			4	4
5	116	1950	25	190	2350	154	28700	4620			50	5000	8000	660	30000			25 ⁴	5
6	40	600	11	170	1750	200	18000	2500			45	4500	9000	800	12000			25 ⁴	6
7	87	1800	17	222	3000	236	10000	1580			34	3500	6800	480	500			17000	7
8	70	2000	18	60	3000	125	4200	850			12	1200	2500	50	100			9600	8
9	30	1000	6	70	1500	125	8000	1500			8	600	1400	100	1000			10000	9
10	35	1300	8	85	1150	180	8500	2100			16	1600	3000	70	290	15000		10	10
11	231	8000	50	66	660	35	2400	600			20	2500	6500	92	250			11	11
12	30	600	8	60	650	50	2600	400			45	5000	10500	20	200			1	12
13	30	600	8	60	100	10	750	200			3	300	750	100	150			1	13
14	250	10000	60	15	300	25	400	100			10	1200	3000	30	1			1	14
15																			15
16	50	2300	14	74	1507	64	16815	968						262	71				16
17														134	30				17
18																			18
19	88	2400	29	48	464	11	5190	280						65	10				19
20	450	13900	113	147	1525	49	31960	1854						456	83				20
21	45	1800	12	38	507	21	6660	424						167	9				21
22	45	1100	7	52	1000	47	7070	444						175	5				22
23	18	600	3	48	800	37	7010	540						188	40				23
24	305	9675	35	130	1837	66	15000	1063			1	356	100	570	50				24
25	13	75	3	64	1760	86	17440	1060			2	1000	260	535	78				25
26	264	425	7	51	950	59	9990	700						590	48				26
27	23	600	6	13	415	16	2220	174						105	33				27
28	39	18	7	36	790	42	7680	518						252	35				28

Fisheries Report.

29 Spry Bay, Taylor's Head and Mu Haboon.....	1247	356	400	58	6	6	5	5	943	90	27,255 00/29
30 Sheet Harbour and Sober Island..	500		400	10	6	4			380	30	18,531 00/30
31 Beaver Harbour and Salmon River	90	2		2					50	5	17,459 00/31
32 Quoddy and Harrigan Cove.....	40								25	3	17,690 00/32
33 Moser River and Smith's Cove....	57				2	5			20	3	1,179 00/33
34 Mitchell's Bay and Ecum Secum....	210					4			180	4	14,347 00/34
Totals.....	30742	4984	6384	3924	2130	7900	610	130	19057	2170	459
Value.....\$	138341	14802	3194	13734	6390	790	4733088	42701300	7621	3254	230
							22011	1875	64		498,883 (M)

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in

Number.	DISTRICTS.	FISHING BOATS.		FISHING MATERIAL.				KINDS OF FISH.				
		No.	Value.	Men.	Gill Nets.		Weirs.		Salmon, fresh in ice, lbs.	Herring, salted, brls.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.
					Fathoms.	Value.	No.	Value.				
	<i>Hants County.</i>		\$		\$		\$					
1	Maitland to Shubenacadie.....	36	402	36	2250	189		18600				
2	Shubenacadie to Grand Lake..	62	226	62	989	291		1170				
3	Noel to Walton.....	8	265	8	2275	637	1 100	4485				
4	West Hants.....	11	465	16	2050	420	7 195	3950	55		1000	
	Totals.....	117	1358	122	7564	1537	8 295	28205	55		1000	
	Value..... \$							5641	248		20	
	<i>Pictou County.</i>											
1	West Pictou.....	141	5045	142	3190	865		300				
2	Pictou Island.....	59	780	112	820	246				30		
3	Central Division.....											
4	Southern Division.....	30	603	42	2515	1292		14700	50	76000		
5	Merigomish Island.....	11	165	20	764	853		10300				
6	North Beach.....	4	60	7	800	900		5200				
7	Ponds.....	14	210	27	1350	2700		13200		12620		
8	Lismore.....	14	210	28	735	1420		6600	100			
	Totals.....	273	7073	378	10174	8276		50300	180	88620		
	Value..... \$							10060	810	665		

Fisheries Report.

the Fisheries, and the Kinds and Quantities of Fish, &c.—Nova Scotia—Con.

KINDS OF FISH.														FISH PRODUCTS.		TOTAL VALUE.		Number.
Mackerel, salted, brls.	Mackerel, fresh or preserved, (in cans), lbs.	Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Haddock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Bass, lbs.	Alewives, brls.	Oysters, brls.	Eels, brls.	Shad, brls.	Coarse and mixed fish, brls.	Fish used as bait, brls.	Fish used as manure, brls.				$	cts.
			42	2					365								5,363 00	1
			152		9500	300	3500	1550	117			44					1,214 00	2
									15			85					2,041 00	3
									31			103	157				4,396 00	4
			194		2 9500	300	3500	2278	528			232	157					
			873		7 950	30	175	136	2378			2320	236				13,014 00	
		386846			350		11200		10	8	10			960	570		56,707 00	1
5	800	197620				1000								168	50		28,360 00	2
					500		15000	400	150	200	125						3,349 00	3
		3250	29720	103			4250							50			9,036 00	4
			76386											80			12,874 00	5
																	1,040 00	6
		157968			200									100			25,021 00	7
		17680					7236					65		115			5,430 00	8
5	4050	866220	103		1050	1000	37686	400	160	208	200		10	1473	620			
70	486	121270	464		105	100	1884	24	720	624	2000		15	2210	310		141,817 00	

RECAPITULATION

OF the Yield and Value of the Fisheries in District No. 2, Nova Scotia, with Comparative Statement of the Increase or Decrease for the Years 1892 and 1893.

Articles.	Quantities in 1893.	Rate.		Total.	Increase.	Decrease.
		\$	cts.	\$	Qty.	Qty.
Salmon, salted.....	Brls. 12	16	00	192 00		93
do fresh.....	Lbs. 260,029	0	20	52,005 00	64,888	
do canned.....	" 1,112	0	15	167 00	402	
do smoked.....	" 2,140	0	20	428 00	915	
Herring, salted.....	Brls. 30,338	4	50	136,520 00		13,097
do fresh.....	No. 128,620	per c.	0 75	965 00		
do smoked.....	Lbs. 13,000		0 02	260 00		3,800
Mackerel, salted.....	Brls. 10,851	14	00	151,914 00		3,471
do canned.....	Lbs. 751,850	0	12	90,222 00	749,850	
Lobsters, canned.....	" 3,631,843	0	14	508,456 00	310,690	
do fresh.....	Tons. 131 $\frac{3}{4}$	40	00	5,270 00		8 $\frac{1}{2}$
Cod, dried.....	Cwt. 53,496	4	50	240,732 00		1,150
do tongues and sounds.....	Brls. 12	10	00	120 00		379
Hake, dried.....	Cwt. 6,557	3	00	19,671 00		1,359
do sounds.....	Lbs. 9,973	0	50	4,986 50	107	
Haddock.....	Cwt. 9,018	3	50	31,563 00		1,046
Pollock.....	" 2,900	3	00	8,700 00		154
Trout.....	Lbs. 62,150	10	00	6,215 00		4,025
Halibut.....	" 245,091	10	00	24,509 00	83,197	
Smelts.....	" 180,241	0	05	9,012 00	25,823	
Bass.....	" 5,473	0	06	328 00		7,797
Alewives.....	Brls. 4,121	4	50	18,544 00	554	
Oysters.....	" 754	3	00	2,262 00		391
Clams.....	" 1,224	7	00	8,568 00		
Eels.....	" 979	10	00	9,790 00	262	
Shad.....	" 1,346	10	00	13,460 00		465
Squid.....	" 7,946	4	00	31,784 00	3,190	
Flounders.....	Lbs. 42,450	0	05	2,122 50		
Tom cod.....	" 2,750	0	05	137 00		
Coarse fish.....	" 2,877	1	50	4,315 00		
Fish oils.....	Galls. 46,314	0	40	18,525 00	7,044	
Seal skins.....	No. 51	1	25	64 00		
Fish used as bait.....	Brls. 15,804	1	50	23,706 00	2,441	
Fish products used as manure.....	" 4,182	0	50	2,092 00	2,278	
				1,427,605 00		

Fisheries Report.

**COMPARATIVE Statement of Value of Fisheries in each County of District No. 2,
Nova Scotia, for the Years 1892 and 1893.**

County.	Value in 1892.	Value in 1893.	Increase.	Decrease.
Antigonish	83,546	71,936		11,610
Colchester	20,835	22,448	1,613	
Cumberland	75,224	86,374	11,150	
Guysborough	587,876	593,143	5,267	
Halifax	433,358	498,883	65,525	
Hants	11,560	13,014	1,454	
Pictou	144,809	141,807		3,002
	1,357,208	1,427,605	85,009	14,612
		1,357,208	14,612	
	Increase	70,397	70,397	

**TABLE showing the Value of Vessels, Boats, Nets, &c., engaged in the Fisheries of
District No. 2, Nova Scotia, with an Approximate Value of other Fishing
Material for the Year 1893, also showing the number of hands employed therein.**

Articles.	Value.
	\$
95 vessels, 2,674 tons	70,923
5,473 boats	112,626
859,969 fathoms gill nets	123,195
89 trap nets	41,185
436 seines, 48,512 fathoms	75,975
23 weirs	6,380
79 smelt bagnets	1,404
Hand-lines, trawls and implements	19,320
165,434 lobster traps	86,666
	537,674
89 canneries	\$ 81,947
32 steamers and smacks	13,070
45 freezers and ice-houses	15,160
1,462 smoke and fish-houses	43,202
875 piers and wharves	22,273
	175,652
	713,326
Number of hands engaged on vessels	564
do do boats	6,442
do do packing, cleaning and curing fish	870
do employed in lobster canneries	1,796
	9,672

NOVA SCOTIA,

RETURN showing the Number and Value of Vessels and Boats engaged in the Number of Men employed in the Fishing Industry

No.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.				Salmon, fresh in ice, lbs.	Herring, salted, brls.	Herring, smoked, lbs.	Mackerel, fresh on ice, lbs.	
		Vessels.			Boats.			Gill Nets.		Weirs						
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.					Value.
	<i>Annapolis County.</i>		\$		\$			\$								
1	Margaretsville	1	18	540	4	12	240	15	1200	600						500
2	Port George					15	300	25	1500	750						200
3	Port Lorne					17	340	36	3000	1500						910
4	Hampton	1	25	750	5	13	260	22	1300	650						400
5	Phinny's Cove and Tray's Cove					17	340	22	1700	850						380
6	Parker's Cove					16	260	32	1500	750						180
7	Hillsboro' and Delap's Cove	1	24	720	5	30	600	57	2800	1400						500
8	Victoria Beach and Granville	8	340	10200	92	25	500	42	2900	1450						90
9	Thorn's Cove to Ferry					10	200	20			4	600				60
10	Clementsport and Bear River	2	26	780	10	22	440	40	400	200	8	1600				45
11	Annapolis East								300	300	1	500	5600			14000
12	Lequille										1	50	4000			4000
13	Round Hill												700			
14	Inland Lakes															
	Totals	13	433	12990	116	177	3480	311	16690	8450	20	2750	10300	3265	45500	8000

Fisheries Report.

DISTRICT No. 3.

Fisheries, Fishing Materials, and the kinds and quantities of Fish, as well as the of the Province of Nova Scotia, for the year 1893.

KINDS OF FISH.														FISH PRODUCTS.				TOTAL VALUE.		No.	
Lobsters, alive or fresh, tons.	Cod, dried, cwt.	Cod Tongries and Sounds, brls.	Hake, dried, cwt.	Hake Sounds, lbs.	Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Bass, lbs.	Alewives, brls.	Clams, brls.	Fels, brls.	Shad, brls.	Fish Oils, galls.	Fish used as Bait, brls.	Fish used as Manure, brls.	Fish Guano, tons.	%		cts.
5	250	2	100	70	55	200	1200								150	100	50	12	5,477	50	1
5	158	2	75	75	150	93	2500								200	300	40	10	3,847	50	2
7	560	6	183	175	100	283	4200								210	400	75	20	10,472	00	3
7	117	2	50	48	50	67	1700								100	210	12	15	4,152	50	4
15	190	2	75	64	56	60	1400								220	375	14	28	5,540	50	5
13	260	3	111	100	140	240	870								120	305	25	25	5,455	50	6
14	596	4	400	360	376	420	2700								400	410	25	25	11,268	00	7
8	5700	15	2000	1500	7000	2400	35000					200			1500	1000	40	25	72,295	00	8
	20		6		15	10										15		25	1,573	00	9
2	405	3	500	475	16	400						500			400	200		20	10,298	50	10
							1200		2000	2500	100								2,940	00	11
							600				150								1,655	00	12
							600			200	20		12	80					302	00	13
							6000												600	00	14
76	8256	39	3500	2867	7958	4173	8400	49770	2000	2700	270	700	32	80	3300	3315	191	220	135,877	00	

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, &c.—Nova Scotia.—Con.

Numbers.	FISHING VESSELS AND BOATS.				FISHING MATERIAL.						KINDS OF FISH.																		
	Vessels.		Boats.		Gill Nets.		Trap Nets.		Weirs.		Seines.		Salmon, fresh in ice.		Herring.		Mackerel.												
	No.	Tonnage.	Value.	Men.	No.	Value.	No.	Value.	No.	Value.	No.	Fathoms.	No.	Value.	Rathoms.	No.	Value.	Fathoms.	No.	Value.	Salmon, fresh in ice.	Salted, bris.	Fresh or frozen.	Smoked, lbs.	Salted, bris.	Fresh, shipped in ice, lbs.			
<i>Digby County.</i>																													
1	20	911	28000	220	5	150	350	142			4	700	2000								240								
2				9																									
3				17		240	220	88																					
4				14		210	440	176																					
5				20		300	550	220																					
6				11		180	220	88																					
7				50		750	880	350																					
8				13		210	220	88																					
9	1	34	1200	9		210	14	450	180	1	1645																		
10				40		600	400	1000	400																				
11				10		150	220	88																					
12				20		300	240	76																					
13				14		210	460	184																					
14				16		242	16																						
15				5		150	220	88																					
16				40		600	300	120																					
17	2	26	600	9		300	300	120																					
18				25		750	4000	400																					
19				8		240	16	320	128																				
20				14		840	840	336																					
21				33		2500	2000	1000																					
22	9	160	5300	56		2000	9000	4500																					
23	7	150	5000	55		2000	7000	3500																					
Totals.	66	1852	60400	535	331	13132	47230	21272	6	9885	27	3975	25	5750	3803	128000	25000	482	28700	100	17113	630	500	4820	1435				
Value																													

Fisheries Report.

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, &c.—Nova Scotia—*Con.*

Number.	DISTRICTS.		KINDS OF FISH.										FISH PRODUCTS.			TOTAL VALUE.	Number.				
			LOBSTERS.	COD.		HAKE.		Haddock, cwt.	Pollock, cwt.	Hallbut, lbs.	Alewives, brls.	Shad, brls.	Squid, brls.	Finan haddies, cases.	Haddock, shipped fresh, lbs.			Haddock, preserved in cans, lbs.	Fish oils, galls.	Fish used as bait, brls.	Fish used as manure, brls.
	Preserved in cans, lbs.	Alive or fresh, tons.	Dried, cwt.	Tongues or sounds, brls.	Dried, cwt.	Sounds, lbs.	Haddock, cwt.	Pollock, cwt.	Hallbut, lbs.	Alewives, brls.	Shad, brls.	Squid, brls.	Finan haddies, cases.	Haddock, shipped fresh, lbs.	Haddock, preserved in cans, lbs.	Fish oils, galls.	Fish used as bait, brls.	Fish used as manure, brls.	\$ cts.		
<i>Digby County.</i>																					
1	24000	14	4320		10870	8500	9870	375	54500				1700			6700	3550		110,543 00	1	
2			96		200	320	80	50								320	50		1,775 00	2	
3			50		280	350	140	20								400	70		1,985 00	3	
4			160		700	1600	200	20								1000	150		3,150 00	4	
5	1200		32		150	200	50	15								150	20		1,859 00	5	
6		10	375		2500	6000	500	50	1000				600			3000	550		26,154 50	6	
7		6	100		280	300	60	40								240	60		2,136 00	7	
8		2	150		1000	1500	140									900	100		5,495 00	8	
9		3	300		2000	3000	1150	300					500			2000	200		22,127 00	9	
10			100		600	900	50									600	75		3,152 50	10	
11		6	340		1350	2000	225									1400	180		8,497 50	11	
12		3	175		700	1000	100									800	75		4,355 00	12	
13								500											3,041 00	13	
14		3						20									5		1,327 50	14	
15		2	80				200	50											1,820 00	15	
16		2	150				100												1,320 00	16	
17		3	500				150	500											5,127 50	17	
18		2	160				48	150											1,698 00	18	
19		2	420				140												2,910 00	19	
20		420	23000		10500	4000	19000	25000	60000					210000		33520	5000	600	351,860 00	20	
21		90	11200		7600	1500	11400	11000	25000							14700	2400	700	168,445 00	21	
22	18000	115	4200		1800	334	3100	8000	7000							6000	2000	270	84,129 50	22	
23		681	45908		50	40450	46753	45790	147500				2800	210000	181400	69730	14775	1575			23
			6048		206586	500	121350	15460	103635	137370			6720	4250	21768	27892	7387	787	815,008 00		

RETURN showing the Number and Value of Vessels and Boats engaged

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.							
		Vessels.			Boats.			Gill-Nets.		Weirs.		Seines.			
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.	No.	Fathoms.	Value.
				%		%			%	%		%		%	
	<i>King's County.</i>														
1	Avonport				12	200	12	5000	1300			1	500	350	
2	Aylesford														
3	Gaspereaux														
4	Bout Island											1	750	475	
5	Long Island											2	1250	690	
6	Starr's Flats											3	3000	1500	
7	Kingsport				1	30	2	200	100			2	1000	500	
8	Medford														
9	Blomidon	1	11	250	2	1	40	2			3	300			
10	Baxter's Harbour					13	300	26	1000	500			1	300	200
11	Hall's Harbour	3	56	900	7	25	500	50	1200	600			9	1750	2000
12	Hunting Point												1	500	250
13	Chipman's Brook	1	14	300	3	3	80	6	750	375			1	400	200
14	Black Rock					8	200	16	800	400	1	100	2	750	375
15	Harbourville					10	250	20	500	250	2	300	3	900	450
16	Morden					3	60	6	200	100			3	900	450
17	Scott's Bay					1	25	2					3	900	450
18	Ogilvie	1	15	400	2	4	100	8	100	50					
	Totals.	6	96	1850	14	81	1785	150	9750	3675	8	900	32	12900	7800
	Value	\$													

Fisheries Report.

in the Fisheries, Fishing Material, &c.—Nova Scotia—*Continued.*

KINDS OF FISH.											FISH PRODUCTS			TOTAL VALUE.		Number.	
Salmon, fresh, in ice, lbs.	Herring, salted, brls.	Herring, smoked, lbs.	Cod, dried, cwt.	Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Halibut, lbs.	Bass, lbs.	Alewives, brls.	Shad, brls.	Fish Oils, galls.	Fish used as bait, brls.	Fish used as manure, brls.	%	cts.		
			25						1300							1	
1250						850								5,962	50	2	
1000						1500								8,000	00	3	
														563	50	4	
										3				380	00	5	
														950	00	6	
	5		20	20			800	162		3				455	72	7	
	50		10	14			250	150						10	90	8	
	25	15000		10										9	40	9	
	325	4000		390	175	195						200	130	300	4,790	00	10
36000	300	80000		250	90	45					15	400	210	500	12,385	00	11
3000	50			20	10	15						60	40	90	1,084	00	12
5000	150			95	15	25						150	30	100	2,355	00	13
3000	800	57600		160	50	100						160	75	100	6,698	50	14
2000	750	50500		60	25	30						200	100	125	5,425	00	15
2320	65			86	20	15						50	30	50	1,318	50	16
1000	47			50	40	10						151	25	10	2,406	50	17
1500	250			60	30	15						90	50	100	1,956	00	18
56070	2817	207100	1226	499	450	2350	1200	312	3006	388	1335	675	1675				
11214	12676	4142	5517	1746	1350	235	120	18	13527	3880	534	337	837	56,135	72		

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, &c.—Nova Scotia—Con.

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.						KINDS OF FISH.								
	Vessels.			Boats.			Gill Nets.		Trap Nets.		Seines.		Salmon.		Herring.		Mackerel.				
	No.	Tonnage.	Value.	Men.	No.	Value.	Fathoms.	No.	Value.	No.	Fathoms.	Value.	Fresh in ice, lbs.	Smoked, lbs.	Salted, brls.	Fresh or frozen lbs.	Smoked, lbs.	Salted, brls.	Fresh, shipped in ice, lbs.	Numbers.	
<i>Lunenburg County.</i>																					
1	3	121	500	27	140	2800	134	22000	3600	33	12000	12	8500	3200	9000	550	350	350	525	1	
2	21	1380	56550	235	185	2850	90	16200	2500	13	5000	10	6000	2000	2500	300	300	160000	250	2	
3	1	39	800	10	80	1425	116	33400	2400	17	12500	17	12500	6800	840	300	570	1000	850	3	
4	1	74	1350	76	1700	25000	1700	1100	1100	15	10500	15	10500	4300	730	200	420	540	4		
5	25	650	33	650	33	18000	1100	1100	1100	20	14000	20	14000	7000	820	720	720	220	5		
6	60	1550	58	2400	1500	1700	32	13000	1200	8	5600	8	5600	3000	300	600	600	480	6		
7	24	700	32	13000	1700	1700	90	38000	1700	10	6500	10	6500	3000	250	440	440	425	7		
8	45	950	50	30000	3000	3000	90	60000	3000	12	4000	12	11000	5000	540	250	250	875	8		
9	90	2250	40	33000	1800	1800	45	1500	40	33000	6	1800	10	6000	200	1000	1000	275	9		
10	170	6000	180	120000	9025	10	2800	30	21000	30	21000	30	21000	9500	650	4000	4000	1060	10		
11	28	450	32	10500	850	8	1850	8	500	8	500	8	500	2000	1020	70	70	95	11		
12	74	5920	444000	1184	180	8100	145	28560	11800	34	10200	4	480	800	425	150	4780	25000	2221	12	
13	57	3980	285000	798	250	7800	165	35345	14130	26	10400	5	600	1000	900	350	2860	1000	525	13	
14	8	560	40000	112	189	600	155	24465	12230	5	2000	4	340	800	425	350	2550	1000	230	14	
15	164	12020	828850	2366	1585	38975	1396	479810	68535	147	50050	181	110520	54200	19970	1600	18960	187000	6000	9181	15
Totals.																					
Value																					

Fisheries Report.

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, &c.—Nova Scotia—Con.

Numbers.	DISTRICTS.	KINDS OF FISH.												FISH PRODUCTS.			TOTAL VALUE.	Numbers.				
		Preserved in cans, lbs.	Live or fresh, tons.	Cod.		Hake.		Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Alwives, brls.	Clams, brls.	Belt, brls.	Squid, brls.			Tom-cod or frost fish, lbs.	Fish oils, galls.	Fish used as bait, brls.	Fish used as manure, brls.
<i>Lunenburg County.</i>																						
1	Chester.....	68000		1400	4	100		50	300	800	1500	2500	140	25	22	40	800	125	160	120	27,900 00	1
2	Mahone Bay and Martin's River.....			22350	110	400		60	140	300	20500	2400	20	40	2	25	400	7300	1300	40	114,575 00	2
3	Fox Point.....			1250	100	100		33	225	500	1000	400	6	7	10	300	620	170	40	40	18,618 50	3
4	Mill Cove.....			325	60	60		45	135	200	200	200	2	2	6	40	120	40	40	40	9,837 00	4
5	Lodge.....			300	70	70					350				3	100	50	20	20	20	5,206 00	5
6	North-west Cove.....			225	2	50		75	75		240		9	20	4	6	190	40	20	10	11,595 50	6
7	Aspotogan.....	48000		230	20	240		25	50		240		8	3	6	2	160	20	10	30	15,723 50	7
8	Sandy Beach.....			240	80						350				8	3	170	40	40	40	7,804 00	8
9	Blandford.....			950	8			100	450	1500	1500	10	4	10	12	400	900	90	70	70	21,369 00	9
10	Little Tancook.....			450	4	30		120	60	400	400	3	3	8	2	250	40	50	220	40	10,251 00	10
11	Big Tancook.....	19200		720				250	40	650	650				2	330	180	180	220	330	36,014 00	11
12	Deep Cove.....			35				45	300		800	18	7	22	14	300	100	10	10	10	2,334 50	12
13	Lunenburg to Cross Island.....	87600	285	98201	130	2160		12603	535	150	219000	300	15	57	310	100	41440	310	800	612,770 50	13	
14	La Have River to New Dublin.....	22500	270	74962	122	287		560	720		30400	200	150	45	700	26125	120	600	600	401,375 00	14	
15	Petite Rivière to County Line.....		160	11554	45			234	50	200	7000		120	30	300	19450	120	750	88,077 00	15		
	Totals.....	245300	715	213222	445	3277	50	14155	2945	2450	283150	6800	498	164	153	120	3300	97770	2690	2820		
	Value.....	\$ 34342	\$ 57200	\$ 959499	\$ 4450	\$ 9831	\$ 25	\$ 49542	\$ 8836	\$ 245	\$ 28315	\$ 340	\$ 2241	\$ 1146	\$ 1530	\$ 480	\$ 165	\$ 39108	\$ 1345	\$ 1410	\$ 1,383,450 50	

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.						
		Vessels.			Boats.			Gill-nets.	Trap-nets	Seines.				
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Number.	Value.	Number.	Fathoms.	Value.
	<i>Queen's County.</i>			§		§			§		§			§
1	Liverpool and Brooklyn.....	6	281	8900	51	54 1142	79	4058	1370			2	900	2 200 350
2	Western Head.....					47 844	58	4174	1191			1	200	200
3	Black Point and Moose Harbour White Point and Somerville.....					38 630	66	3148	871					
4	Port Joli and Port Hebert.....					20 880	39	909	288					
5	Port Mouton.....					108 2000	112	4650	1352			2	200	250
6	Eagle Head.....					24 407	25	1360	410		1	400		
7	Berlin.....					38 743	49	2486	750					
8	Port Medway.....	2	147	5400	26	45 669	55	2696	791		3	1550		
9	Gull Island.....					6 98	9	360	122					
10	Milton.....					10 12	12	100	80					
11	Mill Village.....					45 450	60	1'50	584					
12	Greenfield.....					6 60	20	100	40					
	Totals.....	8	428	14300	77	441 8043	584	25691	7852		6	2850	5	600 800
	Value.....§													

Fisheries Report.

the Fisheries, Quantity and Value of Fishing Material, &c,—Nova Scotia—*Con.*

KINDS OF FISH.														FISH PRODUCTS		TOTAL VALUE.	Number.			
Salmon, fresh in ice, lbs.	Salmon, smoked, lbs.	Herring, salted, barrels	Mackerel, salted, barrels	Lobsters, preserved in cans, lbs.	Lobsters, alive or fresh, tons.	Cod, dried, cwt.	Hake, dried, cwt.	Haddock, cwt.	Pollock, cwt.	Halibut, lbs.	Smelts, lbs.	Alewives, barrels.	Clams, barrels.	Eels, barrels.	Shad, barrels.			Fish Oil, gallons.	Fish used as bait, brls.	\$	cts.
2680		846	500			2151	204	193	33	540		21		12		1081	80	21,149	90	1
		587	365			301	6	37	20	539						200	71	7,900	90	2
		1057	106	16800		342		24	52							120	57	10,124	00	3
		300		5760		340		38	4								30	8,983	90	4
		3369	13	46944	118	664		47	19	1060	2500	15		10		189	162	34,921	76	5
360		657	43	58560	5	65	4	6	4							28	36	12,423	60	6
		430	40	39264		137	2	15	54	100						132	57	8,750	26	7
9160	200	389	70	5760		2726		55	34	240						1272	67	18,256	70	8
		42				43										24	10	654	10	9
2000												80						2,605	00	10
3900	350										3500	340			5			5,135	00	11
2480	200										1022							760	00	12
20580	750	7677	1137	173088	182	6769	216	415	220	2479	6000	1478	21	57	5	3046	570			
4116	150	34546	11370	24232	14560	30460	648	1452	660	248	300	6651	147	570	50	1218	285	131,665	12	

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.						Salmon, fresh, in ice, Lbs.	Herring, salted, brls.		
		Vessels.			Boats.			Gill Nets.		Trap Nets.		Seines.					
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.	No.			Fathoms.	Value.
				\$			\$			\$		\$					\$
	<i>Shelburne County.</i>			\$		\$			\$		\$			\$			
1	Barrington	4	80	2300	26	56	1365	62	13500	1225					300	375	
2	Wood's Harbour	3	79	3500	31	128	2300	120	19000	1800	1	1950	1	1600	500	900	
3	Shag Harbour	2	31	1050	16	42	1050	44	14900	1225						700	
4	Bear Point	1	14	400	6	47	1100	30	9000	900						200	
5	Cape Island	14	295	9595	115	370	7125	456	57500	5350	6	11000				6000	
6	Port la Tour and Baccaro	1	88	2800	16	230	3100	122	50000	6000						1600	
7	Upper Port la Tour	2	30	600	12	35	350	35	15000	600						400	
8	Cape Negro and Blanche					83	925	40	12500	800						950	
9	Cape Negro Island					55	1200	58	16000	1000	1	1500				2200	
10	Cape Clyde					4	50	4	650	30					2200		
11	North-east Harbour	1	14	500	6	10	950	25	6400	1050					1100	145	
12	Black Point and Round Bay	1	14	400	5	46	2800	75	16000	2600						1120	
13	Roseway and McNutt's Island					47	3500	80	15900	2500						1188	
14	Gunning Cove and Churchover					40	1600	64	8300	1385					300	1828	
15	Shelburne and Sandy Point	6	448	14800	95	45	1290	72	18900	3150					900	1700	
16	Jordan Bay	1	95	4000	20	24	1140	35	7500	1250						885	
17	Jordan Ferry					25	875	32	5000	830					3000	398	
18	Lockeport	17	970	60000	190	80	6500	180	23000	4800			2	500	500	4650	
	Totals	53	2158	99945	538	1372	37220	1534	309050	36495	8	14450	3	2100	1000	8300	25239
	Value	8													1660	113575	

Fisheries Report.

the Fisheries, Quantity and Value of Fishing Material, &c.—Nova Scotia—*Con.*

KINDS OF FISH.														FISH PRODUCTS.		TOTAL VALUE.	Number.
Mackerel, salted, barrels.	Mackerel, fresh, shipped in ice, lbs.	Lobsters, in cans, lbs.	Lobsters, fresh, tons.	Cod, dried, cwt.	Hake, dried, cwt.	Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Alewives, barrels.	Clams, barrels.	Eels, barrels.	Fish Oil, gallons.	Fish used as bait, barrels.			$ cts.
10			100	2250		500	200	600	1800	300	725	20	55	1200	1800	27,910 00	1
40	70000	78816	600	800		125	80		1000					300	4500	73,731 74	2
27	3000	24000	75	1050		450	130	200	5000	180	30		45	250	700	21,184 00	3
15		28800	50	250		110	80		1000					75	550	11,237 00	4
50	350150	57600	700	7500	400	3200	325		112000			50		5000	6000	172,746 50	5
30			250	2000	150	800	1800		2000		200			3000	1250	48,075 00	6
12			75	300	100	200	300		1500					400	450	11,705 00	7
140	2000		300	400		700	125		1000					200	500	34,830 00	8
35	2000		200	2000					3000					2000	800	36,850 00	9
			30					550			400					2,430 00	10
		14832		425	14	70	40				25		8	200		5,540 98	11
55				500	6	248	61				28			250		9,135 00	12
70				580		563	214						12	650		11,648 50	13
			19	485		168	257				40			275	350	13,812 50	14
		24816	110	5966	268	516	69	6500			90			2000	450	60,848 24	15
				1660		102								650		12,069 50	16
				34		51		3000		5000	35					3,430 00	17
200		16800	191	19152	1344	2016	784	2700	10000		50	150		3000		144,026 00	18
684	427150	245664	2670	47382	2282	9819	4465	13550	138300	5480	1623	220	120	19450	17350		
6840 51*	21357	34392	213600	213219	6846	3436	13395	1355	13830	274	7303	1540	1200	7780	8675	701,209 96	

RETURN showing the Number and Value of Vessels and Boats engaged in the Fisheries, &c.—Nova Scotia—Continued.

Number.	DISTRICTS.				FISHING VESSELS AND BOATS.						FISHING MATERIAL.						KINDS OF FISH.									
	Yarmouth County.				Vessels.		Boats.		Gill-Nets.		Trap-Nets.		Weirs.		Salmon, fresh, in ice, lbs.		Herring, salted, brls.		Mackerel, fresh, in ice, lbs.		Lobsters, preserved in cans, lbs.		Lobsters, alive or fresh, tons.		Cod, dried, cwt.	
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.	No.	Value.	No.	Value.	6000	7000	1730	150000	105000	8300	80	300	84	1792	115	845
1	13	300	5	40	600	80	6000	2400	1	3000					6000	6000	1730	150000	105000	8300	80	300	84	1792	115	845
2	120	7000	40	54	5770	147	26840	1072	2	4000					7000	7000	3000	105000	8300	220	300	82	3391	84	3391	
3	6	99	24	34	1550	70	300	120	1	1500					300	300	80	8300	220	80	300	1000	1000	1000	1000	
4	14	934	34100	245	62	2975	65	1850	740	1	600				2000	2000	450	3700	19550	47712	47712	142	12027	142	12027	
5	18	1077	32150	255	50	700	100	5000	2000	2	5000				2600	2600	2500	108300	317208	1000	112800	29	3878	29	3878	
6	5	364	1400	93	80	800	120	2000	800	2	2400				9000	9000	300	112800	112800	300	300	230	230	230	230	
7	1	10	250	5	30	800	45	2000	800						600	600	600	600	600	600	600	600	600	600	600	
8	1	10	250	5	30	800	45	2000	800						600	600	600	600	600	600	600	600	600	600	600	
9	1	40	800	5	20	1000	40	1500	600						150	150	150	150	150	150	150	150	150	150	150	
10	48	2657	77550	672	626	15500	962	41830	16732	9	16500				1000	1000	7980	494400	384470	1637	71318	1637	71318	1637	71318	
11	48	2657	77550	672	626	15500	962	41830	16732	9	16500				1000	1000	7980	494400	384470	1637	71318	1637	71318	1637	71318	
12	48	2657	77550	672	626	15500	962	41830	16732	9	16500				1000	1000	7980	494400	384470	1637	71318	1637	71318	1637	71318	
Totals.	48	2657	77550	672	626	15500	962	41830	16732	9	16500				1000	1000	7980	494400	384470	1637	71318	1637	71318	1637	71318	
Value.															5040	35910	7980	24720	53825	130060	320691					

RECAPITULATION

Of the Yield of the Fisheries of District No. 3, Nova Scotia, 1893.

Kinds of Products.	Quantities.	Rate.		Value.
		\$	cts.	\$ cts.
Salmon, fresh, in ice	Lbs. 140,920	0	20	28,184 00
do smoked	" 2,850	0	20	470 00
Herrings, salted	Brls. 69,741	4	50	313,834 50
do fresh or frozen	Lbs. 313,000	0	05	1,565 00
do smoked	" 283,600	0	02	5,672 00
Mackerel, salted	Brls. 11,484	10	00	114,840 00
do fresh (shipped in ice)	Lbs. 976,250	0	05	48,812 50
Lobsters, preserved, in cans	" 1,091,722	0	14	152,841 08
do shipped alive	Tons. 5,961	80	00	476,880 00
Cod, dried	Cwt. 394,081	4	50	1,773,364 50
do tongues and sounds	Brls. 574	10	00	5,740 00
Hake, dried	Cwt. 49,865	3	00	149,595 00
do sounds	Lbs. 34,237	0	50	17,118 50
Haddock, dried	Cwt. 87,199	3	50	305,196 50
do preserved, in cans	" 181,400	0	12	21,768 00
do shipped fresh, in ice	" 210,000	0	02	4,200 00
do smoked (finnan haddies)	Cases. 3,170	2	40	7,608 00
Pollock	Cwt. 63,001	3	00	189,003 00
Trout	Lbs. 32,950	0	10	3,295 00
Halibut	" 824,369	0	10	82,436 90
Smelts	" 104,180	0	05	5,209 00
Bass	" 3,012	0	06	180 72
Alewives, pickled	Brls. 12,730	4	50	57,285 00
do smoked	Nc. 50,000	per M	8 00	400 00
Clams	Brls. 1,105	7	00	7,721 00
Eels	" 803	10	00	8,030 00
Shad	" 641	10	00	6,410 00
Squid	" 755	4	00	3,020 00
Tom cods	Lbs. 43,300	0	05	2,165 00
Fish, oil	Galls. 207,331	0	40	82,932 40
do used as bait	Brls. 42,375	0	50	21,187 50
do do manure	" 9,561	0	50	4,780 50
do guano	Tons. 220	25	00	5,500 00
Total				3,907,259 60

Fisheries Report.

TABLE showing the Number and Value of Vessels, Boats, Nets and Weirs engaged in the Fisheries of District No. 3 of Nova Scotia, and estimate of other Material not included in the Returns.

Material.	Value.	Total.
	\$	\$
358 vessels (aggregate tonnage, 19,644)	1,095,885	
4,613 boats	118,225	
930,051 fathoms of gill nets	163,011	
176 trap nets	93,735	
61 weirs	8,625	
246 seines (128,620 fathoms)	69,550	
		1,549,931
139,645 lobster traps at 80c.	111,716	
39 do canneries	32,725	
		144,441
136 freezers and ice houses	16,605	
1,556 smoke and fish houses	90,171	
567 piers and wharves	78,387	
37 sailing and steam smacks	56,315	
Trawl gear	41,425	
		282,903
Total		1,976,375

NUMBER of Men employed in the Fisheries of District No. 3, Nova Scotia.

In steam and sailing vessels	4,318
In boats	5,595
In factories	614
Total number of men	10,527

RETURN showing the Number and Value of Vessels and Boats engaged in the Number of Men employed in the Fishery Industry of

COUNTIES.	FISHING VESSELS AND BOATS.							FISHING MA-				
	Vessels.				Boats.			Gill Nets.		Trap-Nets.		Weirs
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.	No.
Cape Breton.....	8	119	2,250	39	846	20,369	1,591	77,232	35,000			
Inverness.....	12	315	7,800	71	785	20,577	1,865	68,784	30,346	1	800	73
Richmond.....	68	2,059	38,020	449	1,283	17,665	1,625	202,920	63,950			
Victoria.....	2	48	400	6	795	13,914	1,282	36,757	17,703	3	1,300	
Antigonish.....	1	10	100	3	222	3,745	305	245,890	8,236			1
Colchester.....					97	1,810	166	12,825	2,365			14
Cumberland.....					172	5,514	215	2,449	1,374			
Guysborough.....	13	372	5,500	59	1,987	50,383	2,479	251,032	60,182	74	13,185	
Halifax.....	81	2,292	65,323	502	2,605	42,743	2,777	330,035	41,225	15	28,000	
Hants.....					117	1,358	122	7,564	1,537			8
Pictou.....					273	7,073	378	10,174	8,276			
Annapolis.....	13	433	12,990	116	177	3,480	311	16,690	8,450			20
Digby.....	66	1,852	60,400	535	331	13,132	658	47,230	21,272	6	9,885	27
King's.....	6	96	1,850	14	81	1,785	150	9,750	3,675			8
Lunenburg.....	164	12,020	828,850	2,366	1,585	38,975	1,396	479,810	68,535	147	50,050	
Queen's.....	8	428	14,300	77	441	8,043	584	25,691	7,852	6	2,850	
Shelburne.....	53	2,158	99,945	538	1,372	37,220	1,534	309,050	36,495	8	14,450	
Yarmouth.....	48	2,657	77,550	672	626	15,590	962	41,837	16,732	9	16,500	6
Totals.....	543	24,859	1,215,278	5,447	13,795	303,376	18,400	2,175,673	433,205	269	137,020	157

Fisheries Report.

Fisheries, Fishing Materials and the Kinds and Quantities of Fish, as well as the
the Province of **Nova Scotia**, for the Year 1893.

MATERIAL.				KINDS OF FISH.									
Weirs.		Seines.		Salmon, barrels.	Salmon, fresh, in ice, lbs.	Salmon, preserved in cans, lbs.	Salmon, smoked, lbs.	Herring, salted, brls.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Mackerel, salted, brls.	Mackerel, fresh, or preserved in cans, lbs.	Lobsters, preserved in cans, lbs.
Value. \$	No.	Fathoms.	Value. \$										
510	1	300	1,200	17	14,627			2,830	31,400		2,072	2,000	319,784
	5	805	1,610	18	96,682	2,360		7,095	190,600		5,324	2,600	284,312
				10	4,522			10,586			3,942	1,080	523,546
				209	4,450	2,232		1,506	5,000		1,171	5,942	84,328
10					41,350			1,512			591	19,200	225,456
6,075					61,152					12,000			32,230
	1	46	50		11,820			233				400	479,365
	30	4,435	3,410	12	36,990	1,112	660	18,531			3,649	699,500	1,136,476
	405	44,031	72,515		30,212		1,480	9,827	40,000		6,606	28,700	892,096
295					28,205			55		1,000			
					50,300			180	88,620		5	4,050	866,220
					10,300			3,265		45,500		8,000	
2,750	25	2,500	5,750		500			3,803	126,000	25,000	482	28,700	43,200
3,975	32	12,900	7,800		56,070			2,817		207,100			
900	181	110,520	54,200		19,970		1,600	18,960	187,000	6,000	9,181	18,000	245,300
	5	600	800		20,530		750	7,677			1,137		173,088
	3	2,100	1,000		8,300			25,239			684	427,150	245,664
1000					25,200			7,980				494,400	384,470
15,515	688	178,237	148,335	266	521,230	5,704	4,490	122,096	668,620	296,600	34,844	1,739,722	5,935,535

RETURN showing the Number and Value of Vessels and Boats engaged in the Number of Men employed in the Fishery Industry of

COUNTIES.	KINDS OF										
	Lobsters, alive or fresh, tons.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Hake, dried, cwt.	Hake, sounds, lbs.	Haddock, cwt.	Pollock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Bass, lbs.
Cape Breton.....		13,877		21		2,442	454	6,625	14,290	15,050	
Inverness.....		29,702	30	1,394	1,420	1,700	10	38,160	5,690	38,000	200
Richmond.....	39	33,778	3	30		4,800	492		1,500	17,951	
Victoria.....		21,514	5	343	160	1,237		7,574	5,400	10,780	
Antigonish.....		712		1,275	3,589	77		2,500		3,145	1,795
Colchester.....		190						3,200	2,950	14,000	1,000
Cumberland.....		275		23		101	87	1,000		78,910	
Guysborough.....		21,280		325		4,914	683	37,000	20,730	33,550	
Halifax.....	131½	30,742	12	4,931	6,384	3,924	2,130	7,900	220,111	9,450	
Hants.....		194				2		9,500	300	3,500	2,278
Pictou.....		103						1,050	1,000	37,686	400
Annapolis.....	76	8,256	39	3,500	2,867	7,958	4,173	8,400	49,770	2,000	2,700
Digby.....	681	45,908	50	40,450	30,920	46,753	45,790		147,500		
King's.....		1,226				499	450	2,350	1,200		312
Lunenburg.....	715	213,222	445	3,277	50	14,155	2,945	2,450	283,150	6,800	
Queen's.....	182	6,769		216		415	220		2,479	6,000	
Shelburne.....	2,670	47,382		2,282		9,819	4,465	13,550	138,300	5,480	
Yarmouth.....	1,637	71,318	40	140	400	7,600	4,958	6,200	201,970	83,900	
Totals.....	6,131½	546,448	624	58,210	45,790	106,396	66,857	147,459	1,096,340	366,202	8,685

+Haddock, fresh, etc., valued at \$33,576.

*Alewives smoked, valued at \$400.

Fisheries Report.

Fisheries, Fishing Materials and the kinds and Quantities of Fish, as well as the the Province of Nova Scotia, for the Year 1893.

FISH.									FISH PRODUCTS.					TOTAL VALUE.
Alewives, brls.	Oysters, brls.	Clams, brls.	Eels, brls.	Shad, brls.	Squid, brls.	Flounders, lbs.	Tom-cod or Frost Fish, lbs.	Coarse and mixed fish, brls.	Fish Oils, galls.	Seal skins, No.	Fish used as bait, brls.	Fish used as manure, brls.	Fish guano, tons.	
747	31		265	8	157		600	8	8,237	625	2,780	75	78	182,705 21
2,292	1,050		645		1,397			1,139	17,475	124	1,742	80	29	357,753 83
17,71		227	246		92	17,300		20	11,326		1,130			369,629 89
261	1,653		230		170		4,895	488	9,692	349	1,821			162,325 96
132	196		141						1,981		1,076	228		71,936 00
65				270					180		114			22,448 00
1,025	350		25	244							990			86,376 00
1,525		614	483	600	7,934	4,950	2,750	2,493	25,096		9,981	2,875		593,141 00
686		610	130		12	37,500		217	19,057	51	2,170	459		498,883 00
528				232				157						13,014 00
160	208		200					10			1,473	620		141,807 00
270		700	32	80					3,300		3,315	191	220	135,877 00
30				98					69,730		14,775	1,575		815,008 00
3,006				388					1,335		675	1,675		56,135 72
498		164	153		120		3,300		97,770		2,690	2,820		1,383,450 50
1,478		21	57	5					3,046		570			131,665 12
1,623		220	120		545				19,450		17,350			701,209 96
*5,825			441	70			40,000		12,700		3,000	3,300		683,913 30
21,922	3,488	2,556	3,168	1,995	10,517	59,750	51,545	4,532	300,375	1,149	65,652	13,898	300 ³ / ₄	6,407,279 49

RECAPITULATION

Of the Yield and Value of the Fisheries of the whole Province of Nova Scotia, for the year 1893.

Kinds of Fish.	Prices.	Quantity.	Value.		Total Value.	
			\$	cts.	\$	cts.
Salmon, pickled.....	Brls.	16 00	266	4,256 00		
do fresh.....	Lbs.	0 20	521,230	104,245 20		
do in cans.....	"	0 15	5,704	855 80		
do smoked.....	"	0 20	4,490	898 00		110,255 00
Herring, pickled.....	Brls.	4 50	122,096	549,431 00		
do smoked.....	Lbs.	0 02	296,600	5,932 00		
do fresh.....	"		668,620	5,307 50		560,730 50
Mackerel, pickled.....	Brls.		34,844	441,880 00		
do fresh.....	Lbs.		1,739,722	140,429 14		582,309 14
Lobsters, preserved.....	"	0 14	5,935,535	830,972 88		
do fresh and alive.....	Tons.		6,131½	483,710 00		1,314,682 88
Cod, dried.....	Cwt.	4 50	546,448	2,459,016 00		
do tongues and sounds.....	Brls.	10 00	624	6,240 00		2,465,256 00
Hake, dried.....	Cwt.	3 00	58,210	174,630 00		
do sounds.....	Lbs.	0 50	45,790	22,895 00		197,525 00
Haddock, dried.....	Cwt.	3 50	106,396	372,386 00		
do fresh.....	Lbs.	0 02	210,000	4,200 00		
do preserved.....	"	0 12	181,400	21,768 00		
do smoked (finnan haddies).....	Cases.	2 40	3,170	7,608 00		405,962 00
Pollock.....	Cwt.	3 00	66,857			200,571 00
Trout.....	Lbs.	0 10	147,459			14,745 90
Halibut.....	"	0 10	1,096,340			109,633 90
Smelts.....	"	0 05	366,202			18,310 05
Bass.....	"	0 06	8,685			520 72
Alewives.....	Brls.	4 50	21,922	98,648 50		
do smoked, per 100.....	No.	0 80	50,000	400 00		99,048 50
Oysters.....	Brls.	3 00	3,488			10,464 00
Clams.....	"		2,556			17,665 00
Eels.....	"	10 00	3,168			31,680 00
Shad.....	"	10 00	1,995			19,950 00
Squid.....	"	4 00	10,517			42,068 00
Flounders.....	Lbs.	0 05	59,750			2,987 50
Frost fish.....	"	0 05	51,545			2,576 75
Coarse and mixed fish.....	Brls.		4,532			8,180 00
Fish oil.....	Galls.	0 40	300,375			120,149 40
do bait.....	Brls.		65,652			56,103 00
do as manure.....	"	0 50	13,898			6,950 00
do as guano.....	Tons.	25 00	300½			7,518 75
Seal skins.....	No.	1 25	1,149			1,436 50
Total for 1893.....						6,407,279 49
do 1892.....						6,340,724 01
Increase.....						66,555 48

Fisheries Report.

RECAPITULATION

SHOWING the Number and Value of Vessels, Boats, Nets, &c., engaged in the Fisheries of Nova Scotia, with an Approximate Value of other Fishing Material for the year 1893.

Articles.	Value.	Total.
	\$	\$
543 vessels, 24,859 tons	1,215,278	
13,795 boats	303,376	
2,175,673 fathoms of gill nets	433,205	
668 seines, 178,237 fathoms	148,335	
269 trap nets	137,020	
157 weirs	15,515	
		2,252,729
392,141 lobster traps	277,282	
182 canneries	157,447	
		434,729
114 smelt bag-nets	4,954	
Hand-lines, trawls, &c.	90,745	
181 freezers and ice-houses	31,765	
3,018 smoke and fish houses	133,373	
Steamers, smacks, dories, &c	79,985	
Fishing piers and wharfs	178,502	
		519,324
Total		3,206,782

APPENDIX No. 6.

NEW BRUNSWICK.

District No. 1, comprises the county of Charlotte.—Inspector J. H. Pratt, St. Andrew's.

District No. 2, comprising the counties of Restigouche, Gloucester, Northumberland, Kent and Westmoreland.—Inspector R. A. Chapman, Moncton.

District No. 3, comprising the counties of Albert, St. John, King's, Queen's, Sunbury, York, Carleton and Victoria.—Inspector H. S. Miles, Ormocto.

DISTRICT No. 1.

REPORT ON THE FISHERIES OF DISTRICT No. 1, NEW BRUNSWICK, COMPRISING THE COUNTY OF CHARLOTTE, FOR THE YEAR 1893, BY INSPECTOR JOHN H. PRATT.

ST. ANDREW'S, N.B., 31st December, 1893.

Honourable Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit herewith my fifth annual report on the fisheries of district No. 1, New Brunswick, comprising the county of Charlotte and the adjacent islands in Passamaquoddy Bay.

I also inclose synopsis of the reports of the several local officers with tabulated statements of the yield and value for the year just closed.

I regret very much to have to report that the returns for many kinds of fish will show a slight falling off when compared with last season, which I attribute, not so much to any serious decrease in the schools of fish, but to a more painstaking work on the part of the several officers in collecting the statistics.

The value of the catch for the past two years are:—

Value of catch for 1892	\$863,465 90
do 1893.....	756,253 85
Decrease for the year....	<u>\$107,212 07</u>

The above decrease is owing to the small catch of herring at Grand Manan, for smoking purposes, which on that island is less than in 1892, by \$175,528. Fishermen there did not engage in the smoked-herring industry on account of the small prices offered for them in the several markets, and devoted more of their time to line fishing which proved fairly remunerative. Prices remained quite satisfactory during the season, and in the whole of district No. 1 the fishermen are quite well pleased with their season's operations.

It is a pleasure to note that our fishermen are annually becoming more alive to the value and importance of the fisheries on our coasts. More enterprise and vigour is manifested, fishing in places and at seasons never before thought of is now carried on, competition for fishing privileges is growing keener, and altogether a decided change in the condition of affairs is quite apparent.

Fisheries Report.

Three hundred and thirty-one licenses for herring weirs were issued by me during the year, which is an increase over previous years, mainly owing to better facilities being afforded the fisherman to become acquainted with any vacant privileges, and each and every applicant for licenses being placed on an equal footing.

SALMON.

A great increase over previous years has been observed in the number of this fine fish ascending the River Ste. Croix this season. Some lawless characters, residents of Milltown and St. Stephen, attempted some illegal fishing on the river, but by the activity of our fishery officers, acting in concert with those on the United States side of the boundary, the work was soon broken up. Each season netting is attempted on this river, and only by the employment of vigilant officers will such work be prevented.

Much fine sport was afforded numerous sportsmen at Milltown by angling during the season, and they were well pleased with the protection afforded by the officers.

Salmon also ascended the St. George River through the several fishways there, and a special guardian was employed on duty each night to see that poaching was not attempted as in previous years.

MACKEREL.

This much prized and looked for fish did not enter the Bay of Fundy last season, although confidently expected. Extensive preparations were made for their reception, but the season passed away and only a couple of hundred appeared. Considerable discussion of course ensued as to the cause of their non-appearance, but the matter still remains enshrouded in mystery. Several United States seining schooners sought for them in several parts of the bay but were unsuccessful, although good hauls were made just outside of the Bay of Fundy.

LOBSTERS.

A large increase is noticed in the catch of lobsters, due not only to the fishing being slightly better than previous seasons but also to the fact of a larger number of men being engaged in fishing for them. Prices were considerably in advance of previous seasons.

Many persons have begun this fishing without due regard to the close seasons, therefore, during the week just closed the crew of this ship and the several fishery officers were busy in seeking and destroying several hundred traps and releasing their contents. Great care had been taken in the manner of setting those traps, with a view to their being unnoticed by a casual observer.

HERRING.

The large herring did not strike into the Bay of Fundy last winter for some reason at present unknown. This fact made fishing matters very slack until spring opened. However, large numbers of herring fishermen embarked in the lobster fishing and did fairly well. Good prices were paid for herring during latter part of season, more especially sardine herring.

Numbers of schooners secured cargoes of large herring at Grand Manan, which brought very good prices in the several markets.

Many of the sardine weirs made large hauls, one weir for instance, receiving over \$6,000 for a few months fishing.

The herring fishing at Dark Harbour has shown a wonderful increase over all previous years, large hauls of fish being made throughout the entire season. A special report on the Dark Harbour fishery has already been sent you by the lessee, through me.

COD AND POLLOCK.

A decrease will be noticed in the catch of cod and pollock, which I attribute more to the effects of the numerous schools of dogfish than to any scarcity of the schools of cod and pollock. Good prices and a brisk demand prevailed during the season.

HADDOCK.

The returns show an increase in the haddock catch over last season, the fish not only being more plentiful but there were more persons employed in the fishery. Better prices also prevailed.

HAKE.

Quite an increase over last season is noticed in the catch of hake, and the fish were found very plentiful on the several fishing grounds throughout the season. Some big hauls were made by many of the vessels employed at this fishery.

FISHWAYS.

All the fishways in this district were well looked after by the several fishery officers and are now in fairly good repair. Some few changes may be found necessary next season in several on the Magaguadavic River, but this will be a matter for a subsequent and special report.

ILLEGAL FISHING.

Owing to the trouble experienced in procuring good officers, some illegal fishing for herring was attempted on a number of nights by fishermen at North-west harbour during the latter part of the summer. Considerable difficulty was experienced in endeavouring to prevent it, but by placing a special officer there for over a month the work was stopped. A number of the guilty ones were discovered and will be dealt with as the law directs.

On the herring spawning grounds at Grand Manan, some illegal fishing by gill-nets was attempted by a number of vessels from various parts of the Bay of Fundy, but after a descent was made on them by the "Curlew" one morning at daylight, the nets seized and the owners fined, no more trouble was experienced in that direction. A special has now been appointed for protecting those spawning grounds and a better guardianship will probably be the result.

CAMPOBELLO FISH FAIR.

The revival of the old time fish fair at Welshpool, Campobello, in October last, was a great benefit to the fishermen of the islands, not only from a business standpoint, but also looking at the matter socially.

Fish of all kinds were brought there and placed on exhibition, the numerous exhibitors anxiously endeavouring to secure the much coveted prizes that were offered by the officials of the fair. Besides the highly creditable exhibits of fish, a varied programme of sports on land and water were indulged in, ending with a dance and a supper in the evening.

Such gatherings as this, having such a worthy object in view, should be given every encouragement in our fishing centres. Annual gatherings might be held at a different place each season, a fisheries' conference held at the same time, attended by delegates elected from each fishing village who could exchange views and discuss all matters relating to our fisheries, and there is no doubt immense benefit would be derived from these meetings. All trades and business interests are now organized to protect and forward their interests and the fishermen and those interested in the industry should do the same.

Fisheries Report.

During the past year, up to August 31st, the inspector for this district, had control of District No. 3, which comprises eight of the other counties, compelling him to do considerable travelling inland and absent himself from the duties of this district and the "Curlew," very much of his time. An inspector has now been appointed in No. 3 District.

Overseer Campbell, of St. Andrew's, states that there has been very few violations of the fisheries regulations during the season in his district. Weir fishing has been the principal fishing carried on.

There has been a good run of herring in the weirs and large schools of "britt" were seen during the season.

It is very perplexing to understand, with such large schools of young herring in the bay during the last few years, why there should be so few large herring; very few even fit for smoking have been taken.

More weirs were fished this year than in 1892, and they made larger catches this year than last, with paying prices.

I notice no decrease in the schools of sardine herring from year to year, but if anything, an increase.

The lobster catch was less than last season, owing to a less vigorous prosecution of the industry. They are annually becoming more scarce and unless a close time for a year or two is made, will soon have to be abandoned. Winter fishing for them is the cause, and for this inner bay at least, this fishing should not begin till March.

Only a few stray mackerel were found in the bay this season.

There has been no herring smoked by any person here and very little pumace pressed. The use of small herring for manure I have always prevented, as it would, no doubt, soon affect the schools of fish on the shore.

Little or no poaching was attempted in Chamcook Lakes during the season.

I have fifty-five licensed weirs and weir privileges in my district, and expect to have an increase during the coming season.

Overseer Todd, of Ste. Croix, reports:—The catch of fish was about the same as in 1892. Sardines were plentiful and if there had been a good demand, larger quantities would have been disposed of.

Salmon were very plentiful all the season in this river. Large numbers passed through the several fish-ways. A guardian will be required at Milltown next season, as many reports of illegal work there came to my hearing this fall, but the evidence was not sufficient to have parties prosecuted.

The sardine catch are all exported, all other fish caught are used at home chiefly.

The seven fish-ways in my district are in good repair and have been effective during the season.

Special Guardian Cross of Beaver Harbour reports:—There has been a decrease in the catch of large herring this past season, not that there was any scarcity of those fish, but to a decreased number of men engaged in their capture.

The smoked herring industry was allowed to languish this past season owing to the low prices being paid for them in the several markets.

Mackerel failed to strike inshore this season for some reason as yet unknown to us.

The lobster fishing is gaining in importance to us, the catch has been larger and more men engaged in it each year.

Line fishing has been about the same as last season, but a decrease in the catch of sardines. Sardines seem to be decreasing annually in this neighbourhood, owing, I believe, to the amounts captured each season.

There are no abuses existing in my district. I believe all that is necessary is being done for the fisheries. The close seasons have been well observed.

Overseer Brown, of Campobello Island, reports:—The catch has been below the average of 1892. There has been a decrease in the catch of all kinds of fish with the exception of hake and herring. Hake have not been so plentiful for years. Dog-fish did not interfere with fishing as in former years, although they were very numerous.

The catch of sardine herring shows a pleasing increase over last season, although there were very few caught till the latter part of the season.

There was a decrease in the catch of pollock, also in the lobster catch.

Lobsters less than $9\frac{1}{2}$ inches should not be taken, as they are of little or no value to the fishermen and do not pay for the handling.

The several close seasons have been generally observed and no abuses of any account exist.

Overseer McLaughlin, of Grand Manan, states that there is a falling off in the catch of all kinds of fish excepting hake. The decrease in the cod catch has been gradual for the last ten years, which can only be attributed to the marvellous increase in the schools of dogfish and sharks in the Bay of Fundy.

The herring fishing is one-third less than last year, not from a scarcity of herring, but from the manner in which they have been harrassed by the dogfish, pollock, and silver hake. Herring have been driven ashore by pollock and silver hake on many occasions. The weirs at Whitehead did not fish at regular times as in former years, that at "weir times" the hake and pollock would rush through Cow Passage with a sound like Niagara Falls, and all the herring taken there were caught at times that the tide did not serve.

The pollock have been so well fed by the herring that they did not take the hook, and this fact explains the decrease in the pollock catch.

The Dark Harbour fishery has been very successful, the herring hardly leaving it a day since the beginning of year.

The Three Island herring fishery has been, as usual, very good, and a large number of vessels from various parts of the bay have been fishing there.

The best herring weir in Grand Manan was badly injured by a heavy gale and was not repaired. If repairs had been made, in all probability the catch of the large herring would have equalled last season's.

Large quantities of bloaters and finnan haddies were put up by some fishermen on this island this season and found a ready sale.

One-quarter of the fish taken on this island are marketed in Canada and the remainder in the United States.

No abuses exist excepting the bad habit of leaving nets in the water for days at a time. The temptation for fishermen at North Head to do so is very great as they can pick what bait is required from their nets as they proceed to and from the fishing grounds without the bother of drying nets. They state that the bait keeps better in the cold water than out, unless they have plenty of ice. This pernicious practice has been introduced within the last fifteen years and is believed to be the principal cause of the scarcity of large herring in the vicinity of North Head for years past. I would recommend that nets be not allowed to be set previous to five in the evening and to be taken out by eight in the morning.

The close seasons have been very well observed, excepting some poaching at Wood Islands. October 4th last, noticing nets being set there, I wired the Inspector, and he appeared on the morning of the 6th October, with the Cruiser "Curlew" seized and destroyed nets, and fined the owners thereof.

I would suggest that fishing with gill-nets, touching for herring, be licensed as weir fishermen now are, and thus compel nets to be removed from the water daily.

Special Guardian Haney, of West Isles, reports that he experiences considerable trouble in procuring the estimates of the catch from the fishermen and on their part a disposition to underrate the values of material employed. There was an increase in the value of the catch over last season, and the fishermen generally were well pleased with their year's operations. The same number of men were employed.

There was a falling off in the catch of large herring.

There was a large increase in the catch of lobsters and a greater number of men and boats employed in the industry.

A decreased catch of sardine herring owing, I think, to the presence of dogfish, but an increased price was paid for them.

The close seasons have not been as well observed as they should owing to the facilities that exist for illegal work at night in one or two localities, but I will have a change next season.

I have the honour to be, sir,

Your obedient servant,

JOHN H. PRATT,

Inspector of Fisheries.

Fisheries Report.

DISTRICT No. 2.

REPORT ON THE FISHERIES OF DISTRICT No. 2, COMPRISING THE COUNTIES OF RESTIGOUCHE, GLOUCESTER, NORTHUMBERLAND, KENT AND WESTMORELAND, FOR THE YEAR 1893, BY INSPECTOR R. A. CHAPMAN.

MONCTON, N.B., 30th December, 1893.

Honourable Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit my report for the year 1893, of the fisheries of District No. 2, in the province of New Brunswick, with extracts from the reports of local fishery overseers, also tabulated statements, giving the products and values by districts and counties together with a return of the capital employed in the prosecution of the fisheries. These returns fully confirm the estimates given in my preliminary report and show a very large increase in the aggregate worth of total catch of last year, the figures are:

In 1892	\$2,147,782 60
“ 1893.....	2,792,969 20
An increase of.....	<u>645,186 60</u>

The largest gain is in salmon, smelt and herring, as explained under their respective headings.

SHAD.

While a considerable gain is reported in the Gulf of St. Lawrence districts, a large falling off has taken place in the Bay of Fundy. I can only repeat what I have said before of the necessity of a close time during spawning season to restore this once lucrative fishery.

SALMON.

Of this I may say king of food fishes, the total take is 2,289,297 pounds in 1893, as against 1,179,095 pounds for 1892, a phenomenal increase everywhere except on the Restigouche River, where it was small for reasons which Mr. Verge gives in his report, quoted elsewhere, and which are borne out by the large catch on the coast leading to this river. The streams were not only everywhere full of parent fish this fall during spawning time, but innumerable numbers of parr were observable this season, which together gives assurance of large catches for '1895 and the following years, though that of 1894 may not be quite up to 1893 as grilse were hardly as plentiful this season as last. I am satisfied that more salmon reached the spawning beds in the different streams this fall than for very many years before.

HERRING

Visited the coasts in immense quantities last spring and more than the usual quantities were taken for food, bait, etc.

SMELTS.

The value of this fishery to the country can scarcely be over-estimated, coming as it does in the winter season, when there is very little other employment. The

quantity taken during the past year has been very large, over three million pounds in excess of that of the previous year, and the weather being favourable better results in every way were secured. Present indications are that the catch for 1894 will exceed even that of 1893.

COD.

The take exceeds that of 1892, notwithstanding the extremely stormy weather during the latter half of August and all of September, when very little fishing could be done. Up to the 15th August the catch was 50 per cent above that of the previous year.

MACKEREL.

These erratic fish were plentiful for a short time and of fine quality, but did not remain on the coasts for so long a period as previous year, consequently fewer were taken, each year less are salted and more shipped in ice or placed in freezers to be forwarded in winter, though a good many are captured for home consumption by persons in small boats all along the coasts.

TROUT.

A very large catch of these fish is reported from all points of the different counties, more attention is given to them than formerly, and, like salmon, better protection both by our guardians and the lessees of the rivers is showing good results.

LOBSTERS.

With more factories, a small increase in the aggregate of these fish is reported, though in some districts where they are certainly overfished, there has been a falling off. In the southern part of my district, packers claim fall fishing, while giving the females a chance to spawn undisturbed, would also give better results to the fishermen. I would like to see it tried.

OYSTERS.

Notwithstanding the winter prohibition of taking through the ice, nearly as many are reported as preceding year, and I believe this regulation will in a short time, especially in Kent County, largely increase the production of the finest oysters we have. A very small portion of the beds on the Miramichi River are raked regularly at all, as the area is immense, and the quality comparatively poor in places especially, but some 10,000 barrels each year are taken therefrom.

SYNOPSIS OF FISHERY OVERSEERS' REPORTS.

RESTIGOUCHE COUNTY.

Overseer J. A. Verge, reporting a slight increase over last years' catch, writes: The weather during the month of June being extremely warm and dry, salmon kept in the deep water, and later reached the rivers in much greater numbers than in preceding years. This dry and warm weather in the early part of the season caused grass and mud to rise and render the nets in the lower tideway unfishable, causing them to be taken up early, while those which remained in at tide head where there is no mud or grass, made very good fishing later in the season. The spawning grounds were well stocked with fish during the fall.

A new industry is developing on the Restigouche River in the smelt fishery. Last winter fifty licenses were issued, five of which were on the New Brunswick side near Dalhousie Junction, though fished only for a few days near the end of the season, made a catch of 22,260 pounds. The regulations were well observed.

Fisheries Report.

GLOUCESTER COUNTY.

Overseer James Hickson reports salmon fishing all along the coast this season better than for many years before. The catch of mackerel has been fair; they are larger than usual, and therefore brought a better price. Cod and herring were plentiful, and with extra expenditure and exertion the take of these fish could be doubled. Lobsters fair in quantity and size; smelt fishing very good.

The anglers report good sport on the river this season, but the largest run of salmon went up after the season closed; there were more fish on the Nipisiguit this fall than for a good many years.

Overseer J. D. Theriault says: Salmon a good increase over last year; spring herring abundant; mackerel came in very plentiful, but rough weather prevented a large catch; lobsters were larger, but scarcely up to the average in numbers; codfish were abundant, but stormy weather last half of the season kept down the catch. The existing regulations were well observed, and are a good protection to the fisheries.

Overseer Joseph L. Hache reports fishing of all kinds fair; believes a regulation as to size of oysters should be made to protect the small ones.

Overseer H. D. Albert, of Caraquette, reports an increase in all the leading kinds of fish in his district, and says abuses occur on the Caraquette and Miscou herring banks by schooners from Nova Scotia and elsewhere, defying the local officers; recommends that a Government cruiser visit these places during the fishing season, by latter part of August and early part of September, otherwise reports regulations well observed.

Overseer Arcade Laundry writes: fishing was fairly good in his district except mackerel, which was below the average; he strongly urges additional lights at Shippegan Gully, to enable the large number of vessels and boats engaged in cod-fishing to make harbour at any time of tide, etc.

Overseer Adolph Ache reports fishing generally good except mackerel, says most of the codfish are exported in British vessels to the Mediterranean; other kinds of fish are shipped to places in the United States and Canada or used for local consumption. No abuses exist, close seasons and regulations have been well observed.

Overseer William Marks, of Miscou, says spring herring were abundant, other fishing fair, except mackerel, which were scarcely up to the average; lobsters were scarcely as plentiful but larger than usual.

Overseer Wm. Walsh reports a fair catch of the different kinds of fish usually taken in his district, except lobsters and mackerel not up to last year; he strongly recommends that close time for alewives commence 20th June, as after that date there is danger of the nets taking sea-trout, also that nets be taken up from twelve o'clock noon on Saturday until noon on Monday; the fish are marketed in Canada, United States, West Indies and Brazil; the regulations have been well observed.

Acting Overseer Oliver Robicheau reports a large catch of all kinds of fish usually taken in his district, except mackerel, and it would have been larger, especially in cod, only for rough weather in August and September; the several close seasons have been strictly observed.

NORTHUMBERLAND COUNTY.

Acting Overseer Ferd Robichaud of Neguac (division No. 1, Northumberland County), writes: all kinds of fishing good, except mackerel; herring very plentiful and large quantities caught; salmon have exceeded the record for past twenty years; bass numerous, attributable to the prohibition for past few years.

Overseer J. G. Williston reports as follows:—The season just passed has been one bearing a bountiful harvest for the fishermen. Salmon were unusually plentiful, and I ascribe the great increase to the method now adopted of special guardians on the spawning grounds.

This fall salmon were unusually plentiful in Bay-du-Vin and Black Rivers. Lobsters were a good catch, and I believe now that the short open season for catching them will bring the lobsters back to what they were in former years.

Smelt has been a good catch, no extension should be allowed after the 15th February.

The oyster fishermen have made good work, the falling off from last year was owing to none being taken through the ice. I believe that in the course of a year or two the fishermen will realize that the new regulation was a wise and judicious one. Bass were very plentiful, the result of the three years prohibition, a regulation, I believe, that saved these fish from entire extermination.

Lobsters are exported to Great Britain, salmon in ice, mackerel, trout, halibut, bass, smelts and eels go to the United States; alewives, smoked herring, oysters, flounders and frost-fish are sent to different parts of Canada, while salted herring, cod, hake, shad, fish-oil, bait, fish manure and fish guano are made use of at home. No abuses exist. I have made a number of seizures in past year, but generally the fishermen are law-abiding. There was only one mill running in my district this year, the owner burned all the saw-dust and rubbish.

Overseer L. H. Abbott reports an increase in all kinds of fish, the largest catch of salmon for at least twenty years. Smelts fair; frost-fish abundant. The close seasons with very few exceptions have been strictly observed.

Overseer Patrick Hogan reports a large catch of salmon, which is the principal fishery in his district; believes the great increase of salmon due to present mode of protection; close season well observed, which allowed immense numbers of fish to reach spawning grounds. Salmon sold in United States.

KENT COUNTY.

Overseer Pierre L. Richards reports fishing of all kinds fair in his district, with salmon and herring exceedingly abundant, complains of saw-dust from the large mills on the Kouchibouguac and Kouchibouguac Rivers (these are exempt) doing an immense amount of injury to the fisheries.

Overseer W. F. Hannah, of Richibucto, says: I beg to report a general improvement in the fisheries compared with last year, the close seasons have been well observed and no illegal fishing. I find the mill owners careful in observing the saw-dust regulations.

WESTMORELAND COUNTY.

Overseer Robert Goodwin reports a larger increase in take of salmon by shad-net fishermen, which he believes is partly at least attributable to fry placed in north lakes at head of Sackville River three or four years ago, and strongly urges that more be put there next and succeeding years; believes also that Tignish and Port Elgin Rivers might be stocked.

Overseer Denies T. Cormier reports a small catch of shad.

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

R. A. CHAPMAN,
Inspector of Fisheries.

Fisheries Report.

DISTRICT No. 3.

REPORT ON THE FISHERIES OF DISTRICT No. 3 OF NEW BRUNSWICK, COMPRISING THE COUNTIES OF VICTORIA, CARLETON, YORK, SUNBURY, QUEEN'S, KING'S, ST. JOHN AND ALBERT, FOR THE YEAR 1893, BY INSPECTOR H. S. MILES.

OROMOCTO, 31st December, 1893.

Honourable Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit herewith my first annual report of the fisheries of this district, together with a synopsis of the reports of Overseers and tabulated statements giving the kinds, quantities and values of the fishery products for the year just closed, also the kind and values of the material used in the prosecution of the fisheries. Compared with last year, the total catch shows a slight decrease the exact figures being :

1892.	\$192,673 50
1893.	181,969 85
Decrease	<u>10,703 65</u>

SALMON.

There was a slight falling off in the catch of this fish which was due to a less rigorous prosecution of this branch of fishing, but they were never known to be more abundant on the spawning grounds.

SHAD.

There was also a considerable decrease in this fish which was owing to the fact that on account of there being scarcely any freshet the fish left the harbour where the season this year only lasted two weeks.

HERRING.

There was a marked increase in this catch which was due to the scarcity of shad, consequently herring brought a better price than usual, and the men continued to fish for them much longer.

LINE FISH.

The increase in the catch of cod, hake, haddock and halibut was largely owing to the greater number of men engaged in fishing for them.

SARDINES.

This year sardines returned after an absence of several years and were caught in large quantities by the weirs and seines about St. John, and good prices were obtained owing to the scarcity of this fish in the lower part of the bay.

CONSUMPTION OF FISH.

About seventy-five per cent of the entire catch of salmon was exported to the United States. Of alewives and herring about sixty per cent was consumed in

Canada and the balance was shipped to the West Indies, where remunerative prices were obtained. Hake also was exported to the West Indies, while cod, haddock and pollock were used entirely for home consumption. Sardines—Of this fish half was used by local fishermen for lobster baits, and the rest were exported to the canning factories at Eastport, U.S. Shad—The local demand for this fish was far in excess of the supply.

ALBERT COUNTY.

Overseer Stewart reports that there was a decrease in all kinds of fish except salmon. The decrease is owing to the saw-dust and mill refuse being allowed to go into the streams. The increase in the salmon catch was owing to the salmon being more plentiful than in other years. All the fish caught in this district are used for home consumption.

The mill owners are allowed to put their saw-dust and mill refuse in the streams, which has a very injurious effect on the feeding grounds of the fish, and thus destroying the shad fishery in the bay. It is recommended by fishermen that net fishing be not allowed in rough weather. The close seasons have been well observed, each officer doing his duty and rendering efficient protection. Illegal fishing came to my knowledge, and five men were fined by Fishery Inspector H. S. Miles, and the fines collected. The Saw-dust Act is not observed, and a very great injury is done to the fisheries in this district by the dumping of mill refuse into the river. There is only one fish-way in my district, and that is in good repair. This officer recommends that the Saw-dust Act should be enforced in all the streams in his district, that net fishing be prohibited in rough weather, and that no shad should be taken in St. John harbour before spawning.

ST. JOHN COUNTY.

Overseer O'Brien reports a marked increase in the catch of nearly all kinds of fish, particularly alewives, of which not less than seven hundred barrels were caught in a weir which last year did not take more than three hundred barrels in all. He thinks this improvement due to several causes, among which may be mentioned the beneficial results from the strict observance of the weekly close time, the less destruction of the young fish than in former years, and the fact of having had a very slight freshet, permitted the fish to go up the river where they were followed by the harbour fishermen, who succeeded in taking an uncommonly large catch. Owing to the river being so low, the shad quickly left the harbour, and the season only lasting for a couple of weeks, the catch of this fish was much below the average. Owing to wages being low in the coasting trade, a greater number of men than usual were engaged in fishing, and the result was that there was a decided increase in the catch of cod, hake, haddock, pollock and herring. The total yield of this division is \$114,928.

KING'S COUNTY.

Overseer Howlan states that for several years there has been a continued decrease of all kinds of fish in the main streams of his district, which he considers is owing to the log driving. In the brooks trout are found in abundance and are of particularly fine quality. The close seasons are well observed.

Overseer Gray reports that on account of convictions having been made in his district he found the fishermen hostile and unwilling to give correct returns of their catch of fish. Salmon and pickerel were exported, shad and alewives were mostly used for home consumption. He considers the catch an average one. Total yield of this division valued at about \$16,029.

QUEEN'S COUNTY.

Overseer Cass reports an increase in nearly all kinds of fish in his district and a larger catch than usual, which is due in part to more men having been engaged in

Fisheries Report.

fishing. The entire catch, excepting alewives, were used for home consumption. No abuses were known to exist except that the Friday night close time was not always strictly observed. Guardians were employed and as much protection was afforded as possible. No illegal fishing came to his knowledge. The Saw-dust Act was not generally observed and injury to the fishing interest was the result. No fish-ways are in this district. The total yield of this division is \$20,456.

SUNBURY COUNTY.

Overseer Hoben reports a large decrease in nearly all kinds of fish, except pickerel and alewives, but there was such a large increase in those two kinds of fish that on the whole the aggregate was much larger than usual. The prices obtained were somewhat higher than last year, owing to the scarcity of shad in the St. John market. The fishing season was fine and the fishermen were well satisfied with the result of the catch. The officer suspects that the Friday night close time was not always strictly observed, and the Saw-dust Act was not enforced. There are in this division two fish-ways, both of which are practically useless and have never been of any benefit whatever. They should be put in good condition as they are on an important river at the head of which are fine spawning grounds that millions of fish vainly try to reach. Total yield of this division is valued at \$14,489.

YORK COUNTY, NEW BRUNSWICK.

Overseer Orr reports a decrease in the catch of salmon and shad and a great falling off in pickerel; trout about the same as last year; grilse were very plentiful and very large; all the fish caught in this county were used for home consumption. One abuse on the St. John River is drifting on tidal waters, in non-tidal waters the settlers have taken the advantage of the "Shad Law" by fishing four days in the week. The Overseer thinks that the Friday night's close time on the river St. John was not strictly observed. He reports two unsuccessful efforts to catch parties drifting. He made three net seizures for Sunday fishing and the parties were prosecuted by Inspector H. G. Miles. He reports that the Saw-dust Act is not generally observed by mill owners and it is a cause of great complaint. There are no fish-ways in this district. Owing to a general complaint among the anglers, this officer recommends that net-fishing for salmon be prohibited until the 1st of June instead of the 1st of March as at present. A club represented by Mr. T. G. Loggie spent over \$700 in employing guardians to assist the Dominion guardians in the protection of the S. W. Miramichi, thus rendering a very efficient service which it is to be hoped will be continued next year.

REPORT OF FISHERY PROTECTION IN THE SOUTH-WEST MIRAMICHI.

BY RIPARIAN OWNERS.

FREDERICTON, N.B., 1st November, 1893.

The riparian owners of water on the south-west Miramichi have taken an onward step in the season just past by the successful guardianship of their properties on the Miramichi. It has always been a matter of surprise to the writer, since his first visit to this beautiful river, that a fishing stream so valuable should be left almost entirely to the temptation of settlers, who have always looked upon the habit of illegal fishing by net and spear as a privilege that was an inheritance of their fathers. As a consequence, the river year by year was becoming depleted, and the once famous river was fast losing its attraction for sportsmen, who annually frequented there. During the past winter I opened up a correspondence with the Department of Fisheries, Ottawa, with a view of joining in with us in a mutual protection. I am glad to say that with the hearty co-operation of the inspectors, Messrs. Pratt and Chapman, and the influence of Hon. M. Adams, M.P., for North-

umberland, we were enabled to place a chain of daily guardians from tide head near Indiantown to the Forks, a distance of one hundred and ten miles. Sixteen guardians in all were employed; seven from Boiestown down, and nine from Boiestown up; the latter being a distance of fifty miles, where we placed all our own men in company with three of the Dominion guardians, one of whom, Alex. McDonald, was appointed Head Warden, and to whom and the overseer, Robert Orr, a great deal of the success of the protection belongs. The former was constantly moving among the men to see they were alert on their stretches, collecting reports, etc., etc., the latter making periodical visits in the interest of the Government as well as ourselves. I am glad to say that both speak in the highest praises of the work done by the men, and they report only one seizure of a canoe, made by Inspector McDonald and Benjamin Munn near the Forks. This canoe was rigged for spearing, and the owners freely admitted that they intended illegal work, but said they were ignorant of the laws.

The following division of the river was made:—

No. 1. From Forks to Company Line Rapids.....	2 guardians.
No. 2. From Company Line to Burnt Hill.....	2 do
No. 3. From Burnt Hill to Sand Pond.....	2 do
No. 4. From Sand Pond to Boiestown	2 do

On stretch No. 1, F. Stancliffe, of Montreal, the lessee of the waters, placed two men; A. H. Wood, of Boston, and the Dominion Government, one man each on stretch No. 2; A. H. Wood and Rocky Bend Club, one man each on stretch No. 3; Messrs. Beckwith and Phair and the Government, one man each on stretch No. 4. Another stretch should be added next year from Forks up the North Branch.

From Boiestown to Tide Head, Mr. Adams placed the guardians most suitable to the river, and Mr. Chapman, the Inspector, who was over the route at different times, reports protection well carried out, specially at Arbo Settlement and Porter Settlement, the two week points on the river. Guarding commenced on the 20th of June, when I visited the river, and hired the men, and continued till November 1st—our men, however, were removed according to arrangements, October the 15th. Here let me say, in future the men should remain guarding till the 1st November. Each of our men were supplied with a book to record their daily service, and all were sworn in and appointed Dominion guardians. These daily reports were sent into me weekly, and I have received in all seven hundred and twenty-three of them; they form an interesting record. As a natural consequence a great deal of correspondence was carried on by myself during the summer, and scarcely a day passed did I not have occasion to pass something through the mails. As a result, necessarily, a good deal of work was placed on myself, all of which I heartily place at the disposal of the anglers, without any expense. I was materially assisted by the advice of Mr. E. Hanson, of the Rocky Bend Club.

Pay of Guardians.—The total amount paid to our six guardians was seven hundred and twenty-eight dollars (\$728.00), and the money was promptly received from the anglers, and as promptly paid to the guardians, their pay being at the rate of one dollar per day with one exception.

Result.—The Head Guardian and Overseer report on November the 1st the river abounded in salmon, and all spawning beds preserved and no spearing or netting carried on during the season. I need only add in conclusion that the good work should be carried on in future, and I may safely say that our fishing would increase four-fold.

Yours obediently,

T. G. LOGGIE.

CARLETON COUNTY.

Guardian Lindsay states that the only mode of fishing in his district is that of "fly surface fishing." There was an abundance of salmon and trout in the streams which for the most part run through unbroken wildernesses, consequently are not

Fisheries Report.

fished as much as they otherwise would be. The law has been well observed this year. Salmon were abundant on the spawning beds. The entire catch which consisted principally of salmon and trout was used for home consumption, and as the greater part of the fishing was done by sportsmen, who make no report, accurate accounts cannot be obtained.

VICTORIA COUNTY.

Overseer Ryan reports only an average catch in his division, yet thinks the fish were in the rivers in greater abundance than usual. None were exported. This overseer urges the necessity of building a fish-pass in the dam across Salmon River. He states that the fishing laws and regulations were well observed. Total yield valued at \$2,365.00.

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

H. S. MILES,
Inspector of Fisheries.

NEW BRUNSWICK—District No. 1.

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries; Quantity and Value of Fishing Material; Kinds and Quantities of Fish, and the Total Number of Men employed, &c., in District No. 1, of the Province of New Brunswick, for the Year 1893.

Number.	DISTRICTS.				FISHING VESSELS AND BOATS.						FISHING MATERIAL.						KINDS OF FISH.					
	Vessels.		Boats.		Gill-nets.		Weirs.		Seines.		Salmon, fresh, in ice, lbs.	Herring, salted, barrels	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Lobsters, preserved in cans, lbs.	Lobsters, alive or fresh, tons.	Cod, dried, cwt.	Cod Tongues and Sounds, barrels.				
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Number.	Value.	Number.	Value.									Number.	Value.	Number.	Value.
<i>Charlotte County.</i>																						
1	St. Andrew's.....				76	2280			77	400	400	35	10500	45	1800	1350						
2	St. Croix.....				5	300			15			5	1200	5	60	75	400			40		
3	Beaver Harbour.....	21	359	7100	92	213	4185	295	7500	3750	78	14900	78	1745	60	3450	1550			39	466	
4	Campobello.....	14	274	5745	62	158	5404	189	4943	2431	23	9200	24	600	1018	7000	263			21	747	
5	Grand Manan.....	21	312	7500	70	329	38100	607	31690	11604	24	24000	26	2600	2225	258500	4423			423	4735	
6	West Isles.....	7	94	1500	19	340	12753	292	5275	1802	74	44068	74	2273	422	38450	5920			179	370	
7	St. George.....																					
	Totals.....	63	1039	21845	243	1121	63022	1435	49808	19987	239	103868	252	9078	11956	400	5265	4412050	7000	9444	6358	41

RECAPITULATION

OF the Yield and Value of the Fisheries, District No. 1, New Brunswick, for the Year 1893.

Kinds of Fish.	Quantity.	Price.		Value.
		\$	cts.	\$ cts.
Salmon, fresh	Lbs. 400	0	20	80 00
Herring, salt	Brls. 5,265	4	50	23,692 50
do frozen	Lbs. 4,412,050	0	01	44,120 50
do smoked	" 4,280,420	0	02	85,608 40
Alewives	Brls. 130	4	50	585 00
Cod	Cwt. 6,358	4	50	28,611 00
do tongues and sounds	Brls. 4 $\frac{1}{2}$	10	00	45 00
Pollock	Cwt. 13,420	3	00	40,260 00
Haddock	" 10,765	3	50	37,677 50
Hake	" 28,094	3	00	84,282 00
do sounds	Lbs. 27,646	0	50	13,823 00
Halibut	" 71,944	0	10	7,194 40
Trout	" 9,200	0	10	920 00
Frost-fish	" 950	0	05	47 50
Flounders	" 14,900	0	05	745 00
Smelts	" 5,825	0	05	291 25
Pickarel	" 2,500	0	05	125 00
Squid	Brls. 48	4	00	192 00
Sardines	" 94,119	2	00	188,238 00
do canned	Cans. 250,000	0	05	12,500 00
Lobsters	Tons. 944 $\frac{1}{2}$	80	00	75,560 00
do canned	Lbs. 7,000	0	14	980 00
Clams	Brls. 3,276	1	25	4,095 00
do shelled	Lbs. 10,536	0	05	526 80
do canned	" 250,000	0	05	12,500 00
Fish oil	Galls. 35,255	0	40	14,102 00
do guano	Tons. 40	25	00	1,000 00
do used as bait	Brls. 8,017	1	50	12,025 50
do do manure	" 2,710	0	50	1,355 00
Total				691,182 35
Home consumption, and canned goods not elsewhere specified				80,000 00
Total				771,182 35

Fisheries Report.

NUMBER and Value of Vessels, Boats, Nets, Weirs, &c., engaged in the Fisheries of District No. 1, New Brunswick, for the Year 1893.

Number.	Materials.	Value.
		\$ cts.
63	Vessels, 1,039 tons	21,845 00
1,121	Boats.	63,022 00
49,808	Fathoms of nets	19,987 00
239	Weirs	103,868 00
15,709	Lobster traps	11,716 00
3	do canneries.....	10,000 00
4	Fish presses	400 00
252	Seines (9,078 fathoms).....	11,956 00
1,110	Hand lines	1,502 00
404	Dip nets	2,828 00
691	Trawls	10,142 00
4	Ice houses.....	1,600 00
824	Smoke and fish houses, with fixtures.....	127,323 00
10	Steamers and smacks	5,400 00
211	Wharfs and piers	57,826 00
	Total.....	449,415 00

RETURN showing the Number, Tonnage and Value of the Vessels and Boats engaged in the Fisheries; Quantity and Value of Fishing Material; Kinds and Quantities of Fish, and the Total Number of Men employed, &c., in District No. 2, Province of New Brunswick, for the year 1893.

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.				KINDS OF FISH.									
		Vessels.		Boats.		Gill-nets.		Trap-nets.		Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Mackerel, salted, brls.	Mackerel, fresh or preserved (in cans), lbs.	Lobsters, preserved in cans.	Lobsters, alive or fresh, tons.	Cod, dried, cwt.	Number.				
		No.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.									No.	Value.		
1	<i>Restigouche County.</i>																				
1	Tide Head to Dalhousie				32	640	32	7730	7730								1				
2	Dalhousie to Bellefune.				110	2150	165	18020	12000				2000	2000	50000	120	3				
	Totals.				142	2790	197	25750	19730			2000	2000	50000	120	150	2				
	Value											3000	10850	1000	1680		675				
	<i>Gloucester.</i>																				
1	Petit Rocher				350	5600	600	15000	10000			400	6250	110000	370	25000	3442				
2	Bathurst, &c.				250	4000	450	22000	16000			2700	7100		285	30400	6000				
3	Grand Anse.				3	3800	405	6500	3800	2	6000	3500			1200	49550	2090				
4	Upper Caraquet.				39	8500	125	2450	1850			2500			450		5300				
5	Caraquet.				70	947	32700	247	71	9500	220	14600	6500		172	2300	4				
6	Shippegan (Mainland).				13	151	5150	39	65	4100	135	3550	2050		313	4675	5				
7	Shippegan (Island).				37	433	2200	124	122	8650	284	8350	3500		1127	4150	6				
8	Miscou and Little Shippegau.				1	13	300	3	80	2400	166	2000	1000		160	70000	8				
9	Pokemouche (Parish of Inkerman).				2	1500	6	160	4000	250	23500	7600		525	30000	9					
10	Tracadie (Parishes of Saumuriez and St. Isidore.				6	75	2380	20	125	3860	250	15000	5170		165	25000	10				
	Totals.	138	1771	40630	452	1487	54410	2886	112950	57470	2	6000	1209220	20960	55140	126300	7				
	Value											241844	3144	248130	2526	100	66738	28941	146139	280	271553

NEW BRUNSWICK—District No. 2—Continued.
 RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Continued.

Districts.	FISHING VESSELS AND BOATS.						KINDS OF FISH.																	
	Vessels.			Boats.			Gill-nets.		FISHING MATERIAL.															
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	Salmon, salted, brls.	Salmon, fresh in ice, lbs.	Salmon, smoked, lbs.	Herring, salted, brls.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Mackerel, salted, brls.	Mackerel, fresh or preserved in cans, lbs.	Lobsters, preserved in cans, lbs.	Lobsters, alive or fresh, tons.	Cod, dried, cwt.	Cod, Tongues and Sounds, brs.	Numbers.		
<i>Northumberland Co.</i>																								
1			\$	140	3600		200	40000	\$	205300			5060	5000	25000	200	4000	58600			510		1	
2	3	651800	6	5190	5190	474	60000	60000	185230			3000		20000	20000	400	14000	144720			200		2	
3	8	2156460	40	3000	3000	250	21200	16290	200000			318	25000		170	20000					474		3	
4									70000														4	
5				30	360	30	2400	1600	68427	1980													5	
				50	600	50	3000	2500	84															
	11	2808250	46	559	127750	1004	126600	108300	84	729457	1980	8378	30000	45000	770	38000	203320	203320			1184			
									1344	445691	396	37701	600	900	10780	4560	28465	28465			5328			
<i>Kent Co.</i>																								
				5	200	10	12000	6500	25		1000												1	
1	10	400	3	200	8840	360	18570	7400		52000			6000			1200	24000	287000			2		2	
2				300	8000	450	12000	6500		22500			8600			1456	12000	371000			2280		3	
3				250	7500	450	20000	6000		1000			8000			1200	41000	280000			400		4	
4				215	4500	400	12500	5000					7500			800	4000	210000			250		5	
	1	10	400	3	970	29040	1670	24900	25	75500	1000	30100	50000	1000	4656	81000	1148000	1148000			4130			16
									400	15100	200	135450	1000		65184	9720	160720	160720			18585			160

NEW BRUNSWICK—District No. 2—Continued.
 RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Continued.

District.	FISHING VESSELS AND BOATS.			FISHING MATERIAL.		KINDS OF FISH.									
	Boats.		No.	Gill-nets.		Salmon, fresh, in ice, lbs.	Herring, salted, brs.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Mackerel, salted, brs.	Mackerel, fresh or preserved in cans, lbs.	Lobsters, preserved in cans, lbs.	Lobsters, alive or fresh, tons.	Cod, dried, cwt.	Hake, dried, cwt.
	Value.	Men.		Fathoms.	Value.										
<i>Westmoreland County.</i>															
1 Shediac and Botsford, including Moncton and Salisbury.....	18,000	1,400	725	18,000	7,500	3,000	17,000	30,000	24,000	260	15,000	906,700	100	150	100
2 Westmoreland and Sackville.....	1,080	67	38	6,000	2,000	2,000	450	32,000	30,000	.....	2,000	.....	4	.....	.....
35 Dorchester.....	750	75	35	7,000	2,000	10,000	40	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	19,830	1,542	798	31,000	11,500	15,000	17,490	62,000	54,000	260	18,000	906,700	104	150	100
Value.....	.....	.....	.....	.....	.....	3,000	78,705	1,240	1,080	3,640	2,160	126,938	4,160	675	300

Numbers.

1
2
35

Fisheries Report.

NEW BRUNSWICK—District No. 2—Continued.
 RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Continued.

Numbers.	District.	KINDS OF FISH.												FISH PRODUCTS.		TOTAL VALUE.	
		Trout, lbs.	Smelts, lbs.	Bass, lbs.	Alewives, brls.	Oysters, brls.	Clams, brls.	Eels, brls.	Shad, brls.	Squid, brls.	Flounders, lbs.	Tom-cod or Frost-fish, lbs.	Coarse and mixed fish, brls.	Fish Oils, galls.	Fish used as bait, brls.		\$	cts.
	<i>Westmoreland County.</i>																
1	Shediac and Botsford, including Moncton and Salisbury.....	9,000	870,000	2,800	1,600	150	210	175	400	50	20,000	30,000	60	11,500	290,103	00	
2	Westmoreland and Sackville.....	2,100	65,500	2,200	265	.....	10	300	400	.....	.....	2,200	.....	2,200	20,312	50
3	Dorchester.....	2,000	.....	.....	.....	.....	.....	30	500	.....	.....	2,000	.....	200	7,860	00
	Totals.....	13,100	935,500	5,000	1,865	150	220	565	900	50	20,000	34,200	60	13,700			
	Value.....	\$ 1,310	46,775	500	8,382	450	440	5,650	9,000	200	1,000	1,710	120	280	318,275	50	

RECAPITULATION

Of the Yield and Value of the Fisheries in District No. 2, New Brunswick,
for the year 1893.

Kinds of Fish.	Quantity.	Price.		Value.
		\$	cts.	\$ cts.
Salmon, salted	Brls. 109	16	00	1,744 00
do fresh	Lbs. 2,223,557	0	20	444,711 40
do in cans	" 40,960	0	15	6,144 00
do smoked	" 2,980	0	20	596 00
Herring	Brls. 113,408	4	50	510,336 00
do fresh	Lbs. 218,300	0	02	4,366 00
do smoked	" 204,000	0	02	4,080 00
Mackerel	Brls. 10,573	14	00	148,022 00
do fresh or in cans	Lbs. 378,175	0	12	45,381 00
Lobsters	Cans. 3,366,370	0	14	471,291 80
do	Tons. 129	40	00	5,160 00
Cod	Cwt. 66,048	4	50	297,216 00
do tongues and sounds	Brls. 28	10	00	280 00
Hake	Cwt. 9,020	3	00	27,060 00
do sounds	Lbs. 10,188	0	50	5,094 00
Haddock	Cwt. 890	3	50	3,115 00
Trout	Lbs. 97,170	0	10	9,717 00
Halibut	" 130,920	0	10	13,092 00
Smelts	" 7,103,520	0	05	355,176 00
Bass	" 283,400	0	10	28,340 00
Alewives	Brls. 16,350	4	50	73,575 00
Oysters	" 16,365	3	00	49,095 00
Clams	" 6,828	2	00	13,656 00
Eels	" 4,281	10	00	42,810 00
Shad	" 1,764	10	00	17,640 00
Squid	" 371	4	00	1,484 00
Flounders	Lbs. 330,700	0	05	16,535 00
Frost-fish	" 1,384,100	0	05	69,205 00
Coarse fish	Brls. 3,410	2	00	6,820 00
Fish oil	Galls. 34,675	0	40	13,870 00
Seal-skins	Each. 2	1	00	2 00
Fish, as bait	Brls. 53,854	1	50	80,781 00
do manure	" 35,648	0	50	17,824 00
do guano	Tons. 350	25	00	8,750 00
Total				2,792,969 20

Fisheries Report.

NUMBER and Value of Vessels, Boats, Nets, Traps, &c., engaged in the Fisheries in District No. 2, **New Brunswick**, for the year 1893.

Material.	Value.	Total.
	\$ cts.	\$ cts.
145 vessels (aggregate tonnage, 2,001).....	55,280 00	
3,954 boats.....	118,820 00	
359,370 fathoms of net.....	221,900 00	
1,574 smelt nets.....	59,740 00	
2 mackerel nets.....	6,000 00	461,740 00
196,200 lobster traps.....	155,000 00	
218 lobster factories.....	168,150 00	323,150 00
4 general canneries.....	4,000 00	
104 freezers and ice-houses.....	59,800 00	
371 fish and smoke-houses.....	21,500 00	
24 piers and wharfs.....	4,550 00	
49 steamers and smacks.....	17,300 00	
200 trawls.....	4,250 00	111,400 00
Total.....		896,290 00

NEW BRUNSWICK—District No. 3.

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, Quantity and Value of Fishing Material, Kinds and Quantities of Fish, and the Total Number of Men employed, &c., in District No. 3, of the Province of New Brunswick, for the Year 1893.

Number.	COUNTIES.				FISHING VESSELS AND BOATS.						FISHING MATERIAL.						KINDS OF FISH.														
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Boats.	No.	Value.	Fathoms.	Value.	No.	Value.	Weirs.	No.	Value.	Fathoms.	Value.	No.	Value.	Seines.	No.	Value.	Salmon, fresh in ice, lbs.	Salmon, preserved in cans, lbs.	Herring, salted, barrels.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Number.	
1	Victoria	.....	.....	.....	35	350	60	.....	.....	200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5500	.....	.....	.....	.....	1
2	Carleton	.....	.....	.....	46	920	96	.....	.....	500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8200	.....	.....	.....	.....	2
3	York	.....	.....	.....	96	2072	257	.....	.....	3250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10200	.....	.....	.....	.....	3
4	Sumbury	.....	.....	.....	10	120	4	.....	.....	4050	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	240	.....	.....	.....	.....	4
5	Queen's	.....	.....	.....	12	150	4	.....	.....	20880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3698	.....	.....	.....	.....	5
6	King's	.....	.....	.....	78	780	116	.....	.....	1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18900	.....	.....	.....	.....	6
7	St. John	.....	.....	.....	260	10400	520	.....	.....	76000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	136200	.....	.....	.....	.....	7
8	Albert	.....	.....	.....	5	500	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12400	.....	.....	.....	.....	8
	Grand totals	903	20440	1724	109430	195248

RECAPITULATION

OF the Yield and Value of the Fisheries in District No. 3, New Brunswick,
for the Year 1893.

Kinds of Fish.	Quantity.	Price.		Value.	
		\$	cts.	\$	cts.
Salmon, fresh, in ice.....	Lbs.	195,248	0 20	39,049	60
do in cans.....	"	245	0 15	36	75
Herring, salt.....	Brls.	2,805	4 50	12,622	50
do frozen.....	Lbs.	500	0 02	10	00
do smoked.....	"	600,500	0 02	12,010	00
Lobsters, alive or fresh.....	Tons.	140	40 00	5,600	00
Cod, dried.....	Cwt.	820	4 50	3,690	00
do tongues and sounds.....	Brls.	14	10 00	140	00
Hake, dried.....	Cwt.	4,000	3 00	12,000	00
Haddock.....	"	1,800	3 50	6,300	00
Pollock.....	"	250	3 00	750	00
Trout.....	Lbs.	56,690	0 10	5,669	00
Halibut.....	"	1,060	0 10	100	00
Smelts.....	"	20	0 05	1	00
Alewives.....	Brls.	8,210	4 50	36,945	00
Eels.....	"	110	10 00	1,100	00
Shad.....	"	3,291	10 00	32,910	00
Sardines.....	"	2,000	1 50	3,000	00
Pickarel.....	Lbs.	128,800	0 05	6,440	00
Coarse and mixed fish.....	Brls.	180	3 00	540	00
Fish oil.....	Galls.	140	0 40	56	00
Fish used for bait.....	Brls.	2,006	1 50	3,000	00
Total.....				181,969	85

Fisheries Report.

NUMBER and Value of Vessels, Boats, Nets, Weirs, Wharfs and Piers engaged in the Fisheries of District No. 3, New Brunswick.

Material.	Value.	Total.
	\$ cts.	\$ cts.
18 vessels (342 tons).....	6,670 00	
903 boats.....	20,440 00	
109,430 fathoms of nets.....	71,595 00	
33 weirs.....	8,800 00	
4 seines (1,125 fathoms).....	250 00	107,755 00
14 ice houses.....	2,000 00	
18 smoke and fish houses and fixtures.....	14,375 00	
10 steamers and smacks.....	6,000 00	
50 trawls.....	500 00	
50 wharfs and piers.....	12,700 00	35,575 00
Total value of materials.....		143,330 00

RECAPITULATION showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries; Quantity and Value of Fishing Material; Kinds and Quantities of Fish and the Total Number of Men Employed, &c., in the whole Province of New Brunswick, for the year 1893.

Number.	VESSELS AND BOATS EMPLOYED IN FISHING.						FISHING MATERIAL.						KINDS OF FISH.										
	Vessels.			Boats.			Gill-nets.		Trap-nets.		Weirs.		Seines.		Salmon, salted.		Salmon, fresh, in ice.		Salmon, preserved in cans.		Salmon, smoked.		
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Value.	Fathoms.	No.	Value.	No.	Value.	No.	Value.	Fathoms.	Value.	Brls.	Lbs.	Lbs.	Lbs.	Lbs.	Number.
1	Restigouche	133	1,711	46,630	452	142	2,790	197	25,750	19,730										194,380	20,000		1
2	Gloucester	11	290	8,250	46	1,487	54,410	2,886	112,950	57,470	2	6,000								1,209,220	20,960		2
3	Northumberland	1	10	400	3	970	29,040	1,670	63,070	24,900										729,457		1,980	3
4	Kent	1	10	400	3	970	29,040	1,670	63,070	24,900										75,500		1,000	4
5	Westmoreland					798	19,880	1,542	31,000	11,500										13,000			5
6	Albert					5	500	10												12,400			6
7	St. John	16	320	6,400	75	260	10,400	520	76,000	57,000			5	400	4	1,125	250			136,200			7
8	King's	1	12	150	4	78	780	116	3,800	1,900			28	8,400						18,900	245		8
9	Queen's	1	10	120	4	287	4,558	523	20,580	6,995										3,608			9
10	Sunbury	1	10	120	4	86	860	142	4,050	2,000										10,240			10
11	York					96	2,072	257	4,300	3,250										10,200			11
12	Carleton					46	920	96	500	250										8,200			12
13	Victoria					35	350	60	200	200										5,500			13
14	Charlotte	63	1,039	21,845	243	1,121	63,022	1,455	49,808	19,987			239	103,868	252	9,078	11,956		400				14
	Totals	226	3,382	83,795	827	5,978	202,282	10,478	518,608	313,482	2	6,000	272	112,668	236	10,203	12,206	109	2,419,205	41,205			2,980

Fisheries Report.

RECAPITULATION showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Continued.

Number.	KINDS OF FISH.														Number.		
	Herring, salted.	Herring, fresh or frozen.	Herring, smoked.	Mackerel, salted.	Mackerel, fresh or preserved, in cans.	Lobsters, preserved, in cans.	Lobsters, alive or fresh.	Cod, dried.	Cod Tongues and Sounds.	Hake, dried.	Hake Sounds.	Haddock.	Pollock.	Trout.		Halibut.	Smelts.	Bass.
	Bris.	Lbs.	Lbs.	Bris.	Lbs.	Lbs.	Tons.	Cwt.	Bris.	Cwt.	Lbs.	Cwt.	Cwt.	Lbs.	Lbs.	Lbs.	Lbs.
1	2,300	50,000	64,500	120	241,175	1,043,850	7	150	10	4,688	790	790	10,000	10,000	50,300	500	1
2	53,140	126,300	1,043,850	4,767	38,000	203,320	7	60,434	3,690	700	700	790	15,200	15,200	744,100	20,500	1
3	8,378	30,000	38,000	770	81,000	1,148,000	11	1,184	4,570	4,800	100	100	33,920	2,200	2,087,620	214,000	3
4	30,100	50,000	81,000	4,656	18,000	906,700	104	4,130	100	100	100	100	24,950	5,350	3,286,000	43,400	4
5	17,490	62,000	54,000	260	500	500	20	150	100	100	100	100	13,100	13,100	935,500	5,000	5
6	5	500	500	500	500	500	140	20	4,000	4,000	4,000	1,800	250	2,400	20	20	6
7	2,800	600,000	600,000	8	600,000	600,000	140	800	14	14	14	1,800	250	1,300	1,000	1,000	7
8	King's	Queen's	Queen's	9	9	9	140	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	8
9	Queen's	Queen's	Queen's	10	10	10	140	690	690	690	690	690	690	690	690	690	9
10	Sunbury	Sunbury	Sunbury	11	11	11	140	23,700	23,700	23,700	23,700	23,700	23,700	23,700	23,700	23,700	10
11	York	York	York	12	12	12	140	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	11
12	Carleton	Carleton	Carleton	13	13	13	140	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	12
13	Victoria	Victoria	Victoria	14	14	14	140	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	13
14	Charlotte	Charlotte	Charlotte	14	14	14	140	6,358	48	28,094	27,646	10,765	13,420	9,200	71,044	5,825	14
	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..	Totals..
	121,478	4,630,850	5,084,920	10,573	378,175	3,373,370	1,213½	73,226	46½	41,114	37,834	13,435	13,670	163,060	203,864	7,103,365	283,400

RECAPITULATION showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Continued.

Number.	COUNTIES.	KINDS OF FISH.										FISH PRODUCTS.				Total Value. \$ cts.	Number.		
		Alewives.	Oysters.	Clams.	Bels.	Shad.	Squid.	Sardines.	Pickarel.	Flounders.	Tom-cod or frost-fish.	Coarse and Mixed Fish.	Fish Oils.	Seal-skins.	Fish used as bait.			Fish used as manure.	Fish guano.
		Brls.	Brls.	Brls.	Brls.	Brls.	Brls.	Lbs.	Lbs.	Lbs.	Lbs.	Brls.	Galls.	No.	Brls.	Brls.	Tons.	\$	cts.
1	Restigouche	2,760	2,450	5,608	2,040	49	321	16,700	1,000	100	100	700	100	100	1,000	1,000	90,728	00	1
2	Gloucester	4,025	9,050	100	446	570	289,000	200,900	200,900	300	26,475	22,704	26,475	2	29,278	29,278	1,187,193	00	2
3	Northumberland	7,700	4,715	900	865	245	55,000	994,000	994,000	500	2,100	4,660	2,100	350	3,370	3,370	503,370	70	3
4	Kent	1,865	150	220	665	900	20,000	84,200	84,200	60	5,300	12,100	5,300	700	2,000	2,000	693,404	00	4
5	Westmoreland	1,700	90	2,000	119	2,000	32,000	30,300	30,300	24	2,000	2,000	2,000	5	2,000	2,000	318,275	50	5
6	Albert	1,540	5	350	667	85	49,500	8,000	8,000	45	9,000	9,000	9,000	20	4,068	4,068	50	6	
7	St. John	2,515	12	3	50	20	2,500	14,900	14,900	48	94,119	2,500	35,255	2	63,871	63,871	114,928	00	7
8	King's	2,455	3,276	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	16,029	75	8
9	Queen's	130	16,365	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	20,466	10	9
10	Sunbury	130	16,365	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	14,469	50	10
11	York	130	16,365	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	5,065	00	11
12	Carlisleton	130	16,365	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	4,270	00	12
13	Victoria	130	16,365	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	2,665	00	13
14	Charlotte	130	16,365	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	*771,182	35	14
	Totals	24,690	16,365	10,104	4,391	5,055	181,300	345,600	1,385,050	3,590	70,070	8,017	2,710	380	38,358	38,358	3,746,121	40	

*Including home consumption, not elsewhere specified.

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RECAPITULATION.

Of the Yield and Value of the Fisheries of the whole Province of **New Brunswick**, for the Year, 1893.

Kinds of Fish.		Prices.		Quantity.	Value.		Total Value.	
		\$	cts.		\$	cts.	\$	cts.
Salmon, salted.....	Brls.	16	00	109	1,744	00		
do fresh.....	Lbs.	0	20	2,419,205	483,841	00		
do canned.....	"	0	15	41,205	6,180	75		
do smoked.....	"	0	20	2,980	596	00		
								492,361 75
Herring, salted.....	Brls.	4	50	121,478	546,651	00		
do fresh.....	Lbs.			4,630,850	48,496	50		
do smoked.....	"	0	02	5,084,920	101,698	40		
								696,845 90
Mackerel, salted.....	Brls.	14	00	10,573	148,022	00		
do fresh or preserved in cans.....	Lbs.	0	12	387,175	45,381	00		
								193,403 00
Lobsters, preserved in cans.....	"	0	14	3,373,370	472,271	80		
do alive or fresh.....	Tons.			1,213½	86,320	00		
								558,591 80
Cod, dried.....	Cwt.	4	50	73,226	329,517	00		
do tongues and sounds.....	Brls.	10	00	46½	465	00		
								329,982 00
Hake, dried.....	Cwt.	3	00	41,114	123,342	00		
do sounds.....	Lbs.	0	50	37,834	18,917	00		
								142,259 00
Haddock.....	Cwt.	3	50	13,455	47,092	50		
Pollock.....	"	3	00	13,670	41,010	00		
Trout.....	Lbs.	0	10	163,060	16,306	00		
Halibut.....	"	0	10	203,864	20,386	40		
Smelts.....	"	0	05	7,109,365	355,468	25		
Bass.....	"	0	10	283,400	28,340	00		
Alewives.....	Brls.	4	50	24,690	111,105	00		
Oysters.....	"	3	00	16,365	49,095	00		
Clams.....	"			10,104	17,751	00		
do canned.....	Lbs.	0	05	250,000	12,500	00		
do shelled.....	"	0	05	10,536	526	80		
								30,777 80
Eels.....	Brls.	10	00	4,391	43,910	00		
Shad.....	"	10	00	5,055	50,550	00		
Squid.....	"	4	00	419	1,676	00		
Sardines.....	"			96,119	191,238	00		
do preserved in cans.....	Cans.	0	05	250,000	12,500	00		
								203,738 00
Pickarel.....	Lbs.	0	05	131,300	6,565	00		
Flounders.....	"	0	05	345,600	17,280	00		
Frost-fish or tom-cod.....	"	0	05	1,385,050	69,252	50		
Coarse Fish.....	Brls.			3,590	7,360	00		
Fish Oils.....	Galls.	0	40	70,070	28,028	00		
Seal-skins.....	No.	1	00	2	2	00		
Fish, bait.....	Brls.	1	50	63,871	95,806	50		
do manure.....	"	0	50	38,358	19,179	00		
do guano.....	Tons.	25	00	390	9,750	00		
Home consumption not itemized.....								80,000 00
Total for 1893.....								3,746,121 40
Total for 1892.....								3,203,922 00
Increase.....								542,199 40

STATEMENT of the Number and value of Vessels, Boats, Nets, &c., engaged in the Fisheries of New Brunswick, with approximate value of other material for 1893.

Articles.	Value.	Total Value.
	\$	\$
226 vessels, 3,382 tons.....	83,795	
5,978 boats.....	202,282	
518,608, fathoms of gill-nets.....	313,482	
256 seines; 10,203 fathoms.....	12,206	
272 weirs.....	112,668	
2 trap-nets.....	6,000	
		730,433
211,909 lobster traps.....	166,716	
221 lobster canneries.....	178,150	
		344,866
1,574 smelt-nets.....	59,740	
404 dip-nets.....	2,828	
1,110 hand-lines.....	1,502	
941 trawls.....	14,892	
4 general canneries.....	4,000	
4 fish presses.....	400	
122 freezers and ice houses.....	63,400	
1,213 smoke and fish houses.....	163,198	
69 steamers and smacks.....	28,700	
285 piers and wharfs.....	75,076	
		413,740
Total.....		1,489,039

Fisheries Report.

APPENDIX No. 7.

PRINCE EDWARD ISLAND.

REPORT ON THE FISHERIES OF PRINCE EDWARD ISLAND FOR 1893,
BY FISHERY OFFICER A. LORD.

CHARLOTTETOWN, P. E. ISLAND, 31st December, 1893.

Hon. Sir CHARLES HIBBERT TUPPER, K.C.M.G.
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report of the fisheries of the province of Prince Edward Island for the year 1893, together with tabulated returns showing kinds, quantities and values of fish caught, also estimated values of material employed in the fisheries during the year. The value of the catch shows a decrease as compared with the year 1892 of \$46,488.48, as follows:—

Total value of P. E. I. fisheries 1892.....	\$	1,179,856	68
do do do 1893.....		1,133,368	26
Decrease	\$	46,488	42

Some of the principal branches, such as mackerel, hake and oysters show large decreases, while herring, lobsters, smelts, &c., exhibit considerable increases. The stormy season had a great influence on the catch, closing up the fishery on several parts of the coast a month earlier than usual. Herring were plentiful and the returns show a large increase over last year. Lobsters also show a considerable increase, but this is chiefly due to the fifteen days additional fishing on a great part of the coast, as well as to the unrestricted canning of all sizes and kinds of lobsters, allowed by the regulations of 5th of April last. Ground fish such as cod, hake, haddock, &c., exhibit in the aggregate a large decrease, very materially reducing the returns for the year. Oysters also show a large falling off, the quantity shipped being 3,310 barrels less than in 1892.

Fishing for smelts was actively prosecuted, and a considerable increase is noted, but the catch though large was not sufficient to compensate for the falling off in the other branches.

The fisheries of Prince Edward Island for 1893 may be summarized as follows, herring 80 per cent increase, mackerel 35 per cent decrease, lobsters 12 per cent increase, cod about the same as last year, hake 66 per cent decrease, smelts 250 per cent increase, oysters 15 per cent decrease, minor fisheries about the same as last season.

In my preliminary report sent to the department a short time ago I dealt pretty fully with the general condition of the fisheries, but details, not touched upon then, are given under the respective headings in this report.

HERRING.

This fish strikes inshore immediately after the ice breaks up in the spring and is taken in large quantities at all points around the coast. The schools resort to coves and estuaries to spawn, and are fished with gill-nets for about one month.

The product is of no great commercial value being chiefly used as bait in the other fisheries. The catch was very large this season, being 20,047 barrels in excess of 1892. Out of this abundance, fishermen had no difficulty in securing an ample

supply of bait, as well as to cure a sufficient quantity of the best fish for home consumption. This fishery, while only of secondary importance at present, might become of great value, if proper methods of curing and packing were adopted.

LOBSTERS.

This fishery was vigorously prosecuted, and the product shows an increase of 349,102 pounds over 1892. This increase however was not caused by any improvement in the fishery, but by the employment of an increased number of traps, as the following table will show:—

Year.	Quantity Canned.	Number of Traps used.	Product Per trap.
	Lbs.		Lbs.
1889.....	2,000,947	77,000	26 $\frac{1}{2}$
1890.....	2,416,794	95,725	25 $\frac{1}{2}$
1891.....	3,670,414	138,000	26 $\frac{1}{2}$
1892.....	2,819,572	213,847	13 $\frac{1}{2}$
1893.....	3,168,674	215,000	14 $\frac{1}{2}$

It will thus be seen that the product per trap has fallen off from 26 $\frac{1}{2}$ one pound cans in 1889 to 14 $\frac{1}{2}$ one-pound cans in 1893. This would indicate that the ground is being over-fished and that the fishery has almost ceased to be remunerative. The regulation of the 5th April last, requiring the two lowest laths on each side of the traps to be placed one inch and a quarter apart, was fairly well observed by packers and fishermen, but did not seem to afford any protection to the small lobsters. It is asserted by practical men that the trap as arranged by the regulation of 5th April was more destructive of small lobsters than that heretofore in use. The quantity of small lobsters and lobsters bearing ova canned during the season was very large, and if continued for any length of time it is evident that the industry must be abandoned.

The worst feature of this trap regulation was the taking the control off the factories and placing it on the traps, rendering it necessary for the officers to examine each trap after being in use before declaring it illegal. To examine the large number of traps in use around the coast of this province was a work beyond the power of the few guardians employed, and all that could actually be done was to enforce the close season as strictly as possible. This was also made difficult by the fact that the guardians under the new regulations were not required to visit the factories during the period of canning, and not being acquainted with the operations could not identify them when required as witnesses against parties who were prosecuted for violation of the close season.

A few small packers on the south side of the island attempted canning in the close season, several of them were convicted and paid the penalty imposed by law, while others escaped owing to difficulty experienced in securing evidence against them.

The fact of the size, limit, and the regulation prohibiting the canning of berried lobsters being abolished, no doubt led them to believe that they could violate the close season with impunity and made it difficult for the officers to control them.

MACKEREL.

This fishery shows a falling off of 7,621 barrels. The decrease, however, was not caused by a scarcity of fish but by the stormy weather prevailing towards the close of the season. Mackerel were plentiful in the months of June and July, and good catches were made at all the important stations.

Fisheries Report.

August, however, proved windy, and consequently detrimental to the fishery; a severe storm about the middle of the month completely broke it up and very little was done after that time.

The greatest falling off occurred in Prince County, on that part of coast extending from Cascumpec to Tignish, and North Cape to West Point. The fishery was fairly successful in King's and Queen's counties, but the catch generally is below the average.

COD.

The cod fishery was not actively prosecuted, although the returns show a slight increase of 1,570 cwt. This fishery, at one time a leading industry in this province, has of late years been almost completely abandoned. This is not caused by any scarcity of fish but to the fact that fishermen find more lucrative employment in the lobster and mackerel fisheries.

HAKE.

The catch of hake shows a falling off 15,502 cwt. There is a great abundance of hake during the summer months in the coastal waters of this island, but the fishery is not vigorously prosecuted and poor results are shown.

A scarcity of bait and stormy weather contributed their share in making the season's work a failure, as the fishery to be successful must be prosecuted partly at night and at a considerable distance from the shore.

SMELTS.

Fishing for smelts with bag-nets in the rivers of this province was very successful during the season, and the catch shows an increase of about 300,000 lbs. This is a new industry here, and, as it is carried on in the fall and winter months, gives employment to a large number of young men who otherwise would be compelled to seek work abroad. At the present time the fishery is being actively prosecuted at all points, and it is believed will show excellent results another season.

OYSTERS.

The oyster fishery has not proved successful in island waters this season, and the returns show a decrease of 3,310 barrels. The beds at Richmond Bay show signs of depletion, the whole shortage occurring at that place.

In the smaller bodies of water the beds appear to be in fair condition, but at Richmond Bay the yield is decreasing from year to year, although more men, boats and tongs are employed. The average size of the product is also becoming smaller, indicating that the beds are being overfished. This fishery is not in a satisfactory condition and requires intelligent attention to preserve it.

SALMON.

Fishing for salmon is not carried on in the rivers of this province, the quantity appearing in the returns being taken with gill-nets set in the estuaries and bays and along the coast. In the vicinity of St. Peter's Bay in King's County, a considerable fishery was carried on, several parties having provided nets and other outfit for that purpose. In view of the probable future development of this fishery I would beg to recommend that it be placed under license, thereby bringing it more directly under the control of the department. During the season some difficulty was experienced in settling disputes between parties with regard to the location of nets; the fishermen not recognizing the authority of the guardians when the fishery was not under license. The overseer and guardian at Dunk River in Prince County were much annoyed by poachers on that stream during the run of salmon. The poachers, tempted by the great abundance of salmon in the river, came in organized gangs

armed and otherwise fully prepared to resist the officers. On several occasions they set the guardians at defiance and although every effort was made by Overseer McBride and the men under him to protect the stream, it is feared that considerable fish were taken by the poachers.

TROUT.

In some of the streams trout were fairly plentiful, while in others a great scarcity was noticed. The returns show an increase in the catch of 1530 lbs. over last year. The estimate of the quantity taken is, however, only approximate as the catch is chiefly made by anglers from whom reliable returns cannot be obtained. The rivers generally are in poor condition, trout being scarce and small in most of the streams.

The minor fisheries such as haddock, halibut, eels, alewives, &c., show no great change from year to year.

Fishing for haddock and halibut is not prosecuted as a separate industry, the quantities appearing in the returns being taken in connection with the cod and hake fisheries.

Eels are plentiful in all the rivers, and are taken in large quantities and sent in a frozen state to the markets of the United States. Alewives do not frequent the streams now as in former years, the small quantity appearing in the returns (569 barrels) being the whole catch for the season.

Fish products, owing to the small catch of hake, shows a considerable falling off. Generally the season's operations cannot be considered satisfactory.

The large catch of herring has fairly well maintained the total value, but, as herring is chiefly used as bait, its great abundance has not been of much benefit commercially. The shortage in mackerel was keenly felt by fishermen and dealers especially as there was no increase in any of the other branches to compensate for it.

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

A. LORD, *Agent.*

Fisheries Report.

PRINCE EDWARD ISLAND.

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, Quantity and Value of Fishing Materials, Kinds and Quantities of Fish, and the Total the Number of Men employed, &c., in the Province of Prince Edward Island, for the Year 1893.

Number.	Districts.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.						KINDS OF FISH.									
		Vessels.		Boats.		Gill Nets.		Trap Nets.		Seinees.		Salmon, fresh in ice, lbs.		Herring, salted, brls.		Herring, fresh or frozen, lbs.		Herring, smoked, lbs.		Mackerel, salted, brls.			
		No.	Tonnage.	Value.	Men.	Pathom.	Value.	No.	Value.	No.	Fathom.	Value.	No.	Fathom.	Value.	No.	Herring, salted, brls.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Mackerel, salted, brls.	Number.		
<i>Prince County.</i>																							
1	Nail Pond																						
2	Tyngish	11	513	10000	54	49	3490	156	3846	1220	2	1000			4	705	1200				1525	1	
3	Alberton	3	113	3300	31	20	440	40	1275	520					6	1010	1550				2126	2	
4	Narrows				16	1233	43	1900	920						3	355	580				357	3	
5	Grand River				16	1200	28	482	200												130	4	
6	Malpeque				2	60	2000	10	1200	800	300										500	5	
7	Tyron				2	90	2500	10	1200	350	200				2	600	800				200	6	
8	Summerside and Richmond Bay							20	1000	200											2000	40	7
9	Egmont Bay							60	2315	119	5376	2686									7150	1143	8
10	Mimmgash							130	3900	400	6300	1625			6	800	2000				1500	2500	10
11	Bays and Rivers.							6	100	12	200	20											11
Totals.		18	776	18000	105	440	19248	1222	28850	10931	21000	21	3470	6130	200	23880	5000	6000	8075				

Fisheries Report.

PRINCE EDWARD ISLAND—Continued.
RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Continued.

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.										FISHING MATERIAL.					KINDS OF FISH.				
		Vessels.		Boats.		Gill-Nets.		Trap-Nets.		Seine.		Salmon, fresh in ice, lbs.	Herring, salted, brls.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Mackerel, salted, brls.	Number.				
		No.	Value.	No.	Value.	Men.	Pachoms.	Value.	No.	Value.	No.							Value.			
	<i>King's County.</i>																				
1	St. Peter's			44	1500	114	5000	1500				271			617	1					
2	Dundas			150	3000	300	4500	1500			1600	1750			600	2					
3	Murray Harbour	8	267	55	100	2000	5400	2160				480			25	3					
4	Souris	1	11	4	200	3000	10000	3600				1738			454	4					
5	North Lake			75	1500	182	3375	900				730			825	5					
6	Naufrage			65	1610	195	14000	700			220	1500			700	6					
7	Georgetown	8	236	49	5000	100						5600			600	7					
	Total	17	514	108	13600	1871	29675	10360			1820	12064	1000		3821						

PRINCE EDWARD ISLAND—Continued.
RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Continued.

Number.	DISTRICTS.	KINDS OF FISH.													Fish Products.			TOTAL VALUE.	Number.		
		Mackerel, fresh or preserved, in cans, lbs.	Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Cod, tongues and Sounds, brls.	Hake, dried, cwt.	Hake Sounds, lbs.	Haddock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Alewives, brls.	(ysters, brls.	Clams, brls.	Fels, brls.	Tom-cod or frost fish, lbs.	Fish Oils, galls.			Fish used as bait, brls.	Fish Guano, tons.
<i>King's County.</i>																					
1	St. Peter's			1000		30		40		400	9800	315					512	271		29,832 82	1
2	Dundas.		88368	150		175														41,646 80	2
3	Murray Harbour.		172370	10000		4020		500			5000						2700	3000		101,889 04	3
4	Souris		227136	2477		1957	3398										1450	1700		50,384 60	4
5	North Lake.		90240						6500	3000		112					750	560		35,151 18	5
6	Naufrage.		89712					50			2000							60	1200	26,026 00	6
7	Georgetown.		50400	60		150					3000							200	2000	49,134 60	7
	Georgetown.		80640	50																	
	Total		798866	15462		6332	3598	590	6570	3400	19800	427	295	55	5672	8731				334,035 04	

PRINCE EDWARD ISLAND—Concluded.

RETURN showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, &c.—Concluded.

Number.	DISTRICTS.	KINDS OF FISH.													FISH PRODUCTS.					TOTAL VALUE.							
		LoBSTERS, preserved in cans, lbs.	Cod, dried, cwt.	Cod Tongues and Sounds, brls.	Hake, dried, cwt.	Hake Sounds, lbs.	Haddock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Alewates, brls.	Oysters, brls.	Clams, brls.	Rel, brls.	Flounders, lbs.	Tom-cod or Frost Fish, lbs.	Coarse and Mixed Fish, brls.	Fish Oils, galls.	Seal Skins, No.	Fish used as bait, brls.	Fish used as manure, brls.	Fish Guano, tons.	%	cts.	Number.		
<i>Queen's County.</i>																											
1	Tracadie	119136	805				300		63000	75	40								440	1200					39,227	54	1
2	Charlottetown and Lot 48	51840							13000		1125														10,632	60	2
3	Crapaud	91776							500		40	10	4	100	120	750	88		25	10	30	10	200		16,646	64	3
4	Point Prim	172416	10		12	3	600				40	10	4	100	120	750	88		25	10	30	10	200		26,355	74	4
5	New London	74400	825		50	5	20		80750		150		20						200	800					32,221	00	5
6	West River and Lot 65	260976							2940		325									500	1700				42,998	14	6
7	Rustico	89856	180						2900		560									500	1700				47,114	84	7
8	Bays and rivers.								2900		560									500	1700				2,655	00	8
		860400	1820		62	17	23	5200	165090	75	2240	130	86	100	870	938	1165	10	4470	125	290				218,471	50	
RECAPITULATION.																											
1	Prince County	1509408	3780	2	1650	3300	255	24200	2000	311500	67	27387		539		800			3259		7234		515		580,861	72	1
2	King's do	798866	15462	6332	3598	590	6570	3400	19800	427	2915	55							3672		8731				334,035	04	2
3	Queen's do	800400	1820		62	17	23	5200	165090	75	2240	130	86	100	870	938	1165	10	4470	125	290				218,471	50	3
	Grand Total	3168874	21062	2	8044	6915	868	35970	5400	496330	569	29627	425	700	100	1670	938	10096	10	20435	125	805			1,133,368	26	

Fisheries Report.

RECAPITULATION.

SHOWING Yield and Value of the different Fisheries in the Province of Prince Edward Island, during the year 1893.

Kinds of Fish.	Quantity.	Price.		Value.	Total Value.
		\$	cts.	\$	cts.
Salmon, fresh.....	Lbs.	2,970	0 20	594 00	
Herring, salted.....	Brls.	40,949	4 50	184,270 50	
do fresh.....	Lbs.	12,500	0 01	125 00	
do smoked.....	"	6,000	0 02	120 00	
Mackerel, salted.....	Brls.	14,280	14 00	199,920 00	
do canned.....	Lbs.	38,100	0 12	4,572 00	
Lobsters, canned.....	"	3,168,674	0 14	443,614 36	
Cod, dried.....	Cwt.	21,062	4 50	94,779 00	
Tongues and sounds.....	Brls.	2	10 00	20 00	
Hake, dried.....	Cwt.	8,044	3 00	24,132 00	
do sounds.....	Lbs.	6,915	0 50	3,457 50	
Haddock.....	Cwt.	868	3 50	3,038 00	
Trout.....	Lbs.	35,970	0 10	3,597 00	
Halibut.....	"	5,400	0 10	540 00	
Smelts.....	"	496,390	0 05	24,819 50	
Alewives.....	Brls.	569	4 50	2,560 50	
Oysters.....	"	29,627	3 00	88,881 00	
Clams.....	"	425	6 00	2,550 00	
Eels.....	"	700	10 00	7,000 00	
Flounders.....	Lbs.	100	0 05	5 00	
Tom-cods.....	"	1,670	0 05	83 50	
Mixed and coarse fish.....	Brls.	938	2 00	1,876 00	
Fish oil.....	Galls.	10,096	0 40	4,038 40	
Seal-skins.....	"	10	1 00	10 00	
Fish used as bait.....	Brls.	20,435	1 50	30,652 50	
Fish used as manure.....	"	125	0 50	62 50	
Fish Guano.....	Tons.	805	10 00	8,050 00	
Total value, 1893.....					1,133,368 29
Decrease, 1893.....					46,488 42

RECAPITULATION.

SHOWING the Number and Value of Vessels, Boats, Nets, Lobster Canneries, Traps &c., engaged in the Fisheries of the Province of Prince Edward Island for 1893.

Number.	Article.	Value.	Total Value.
		\$	\$
39	Vessels, 1357 tons	33,350	
1,337	Boats	46,458	
74,046	Fathoms, gill-nets	27,002	
2	Traps	1,000	
42	Seines, 6890 fathoms	11,770	
56	Smelt nets	1,781	
225	Trawls	2,607	
215,000	Lobster traps	129,000	123,968
217	do canneries	296,150	
1,600,000	Fathoms, rope	65,000	
			490,150
4	Ice-houses	650	
135	Fish houses	22,500	
10	Piers	4,250	
1	Steamer	3,000	30,400
	Total		644,518

Fisheries Report.

APPENDIX No. 8.

QUEBEC.

REPORT OF THE GULF OF ST. LAWRENCE FISHERIES FOR THE YEAR 1893, BY COMMANDER WM. WAKEHAM, INCLUDING SYNOPSIS OF ALL THE OVERSEERS' REPORTS.

GASPÉ, 3rd December, 1893.

Sir CHARLES HIBBERT TUPPER, &c., &c., &c.,
Minister of Marine and Fisheries.
Ottawa.

SIR,—I have the honour to submit the report on the condition of the fisheries of the Gulf division of the province of Quebec, for the season just closed. Attached will be found synopsis of the reports of the local officers, and detailed statistics of the reports of the local officers, and detailed statistics showing the quantity and value of the catch in each of the subdivisions.

The fishery has been a good one, and the close of the season finds the fishing population, both on the south and north shores, comfortably off and well provided for the winter. The fishing season opened early, and when I passed along the coast, on my return to Gaspé last week, I found boats still fishing for herring and cod. There is no doubt that if the facilities existed for shipping fresh fish to market after the close of navigation, the fishing along many parts of the coast of Gaspé and Bonaventure could be extended for a month—this at a time when herring and cod are more than usually abundant, and more inshore than at any other season.

In 1892, which was also a good year, the fishery was estimated to have yielded a value of \$1,915,954.36. For this present year, the accompanying returns give us a total of \$1,942,755.71, or an increase of \$26,801.35. I would here point out that these returns do not by any means give us the full value of the fish taken out of even the strictly inshore waters of this division, as at the Magdalen Islands we have in the spring a large quantity of herring taken with the drag-seine, in Pleasant Bay, by vessels from the United States and Nova Scotia, while during the summer large quantities of mackerel are also taken close inshore about these islands with the gill-net, and hook, by fishermen from the same places. Again, on the Labrador, it is safe to say that this season there was taken by vessels from Nova Scotia and Newfoundland, many of which used trap-nets which are fished from the shore, while others, using the hook and line, in every case fished within a mile of it, at least 120,000 quintals of codfish. Now, all this fish is actually taken close inshore by vessels which carry on the fishing from within our harbours, and we might very fairly include the product of this fishery in our returns, which would certainly swell them by at least half a million dollars. The fish for which we give you quantities and values in the accompanying returns, is, however, only that which is actually landed and cured on shore in the division.

SALMON.

Salmon net-fishing began about the 20th May, and the catch shows an increase both in Gaspé and Bonaventure, while in the county of Saguenay the yield is about the same as in 1892, which was a good year; the coast nets in the sub-divisions of Godbout and Moisie again made wonderful fishing.

The fly-fishing was not up to the average, though in the latter part of the season many sportsmen did well. Owing to the small snowfall of last winter, the spring freshets did not amount to anything, consequently the fish did not take to the rivers until the month of July, when after several heavy rains, the waters rose and became less clear, those who chanced to be on the rivers at the right times to get the benefit of these small floods had good sport.

I believe that, as far as the counties of Gaspé and Bonaventure are concerned, with the present number of nets, fished strictly up to the regulations, and a fair annual distribution of fry to the rivers, there should be no further decrease of the salmon. In that part of the county of Saguenay within the limits of the Gulf division, there has certainly been no perceptible decrease in my time. I would not advise for Gaspé and Bonaventure any increase over the number of nets now fished, nor would I advise the issuing of any new licenses in that part of Saguenay County, west of Natashquan.

HERRING.

The catch of herring has again been small, though these fish were more than usually constant for bait purposes, all through the season on the south coast, yet the spring catch at the Magdalen Islands was below the average, and the fall fishing on the Labrador was a complete failure. Small fat herring were very abundant along the coast of Gaspé in December, they were only taken for local use. These small fat fish are not found at any other season, save when the ice is making along shore in the months of November and December, they are undoubtedly as far as quality and flavour is concerned, far and away ahead of any other run of herring, but they never reach the market.

COD.

Cod-fishing began early in May, continued good all through the season, and where the fishermen were hardy and enterprising enough to go out after them, were abundant close inshore until Christmas; since this date I have not heard of any having been taken, but there can be no doubt that they are still along the shore. On many parts of the north coast during the month of July, the quantity of cod on the inner banks, or schooling at the surface inshore was something phenomenal; fishing in many places had to be stopped because the shore crews were not able to split, and salt the fish as rapidly as it was being caught and brought in.

The fishing was good even on the north shore until late in the fall, but the great spurt was in July, when the fish were schooling inshore after the capelin. Overseer Gaudin in his report for the Natashquan subdivision, mentions the case of one boat (two men), which took 450 quintals of cod in 24 days. The season has been a good one for the fishermen, the price of fish was fair, and flour never was cheaper; a barrel of good flour could be had for a quintal of fish.

Owing to the continued trouble in Brazil, the season has been a poor one for the fish exporters. The latest reports are that some of the vessels which have arrived at Rio Janeiro with this season's fish, have not been allowed to land their cargoes, as the Brazilian market has always been the one to which the best of that which is known as "Gaspé shore fish" has been sent; this means a serious inconvenience to shippers.

As our fish has gradually been driven out of the European markets by the French fish, owing to the enormous bounty paid by the French Government, an increasing amount of it has been sent to the West Indies and South America, these latter markets are always more or less uncertain, as these southern countries are in an almost chronic state of revolution. It therefore seems high time that our fishermen turned thier attention more to the market which exists at their very doors, with the railway facilities which we either now have, or which we should have, a much larger trade should be developed with the interior of our own continent, and the methods of

Fisheries Report.

curing fish at present in vogue, which have existed from old time, which are old fashioned and costly, and which will not suit the North American market, should be so reformed and changed as to meet the requirements of the nearer people.

LOBSTERS.

The output of the lobster canneries shows an increase of 69,200 pounds over the pack of 1892, this is rather due to the increased number of traps fished than to any other cause; at some points the run of lobsters is keeping up, that is the average size of the lobster is not decreasing, and this of course is always the best proof that the fishery is not being overdone, but unfortunately at other localities, as in the upper part of the Baie Chaleurs, and at the Magdalen Islands, there is a manifest increase in the number of lobsters required to fill a pound can. The fact is that there really must be some limit put to the number of traps fished over a given area. I would again point to the fact, that the only lobster fishing done out of season in the Gulf division is in the lagoons, at the Magdalen Islands, where the boats of "La Canadienne" found and destroyed a number of traps, which were being fished after the close of the season, as these lagoons are undoubtedly frequented by the lobsters for trading purposes, I would strongly urge that they be closed, and that no one be allowed to fish for lobsters in these lagoons at any time.

MACKEREL.

The mackerel fishing shows a decided improvement, the take being 8,215 barrels as against 4,817 barrels in 1892. There is no doubt that these fish are becoming more abundant in the gulf, it is too soon to attribute this increase entirely to the regulation prohibiting the use of the purse seine in the bay, and inshore waters, though there is no doubt that by this prohibition of purse-seining, these inner waters where the boats fish have been less disturbed, and the fish that enter them have not been harrassed and driven off. An immense body of mackerel was known to have entered the Gulf in May and June, many of these fish remained about the Magdalen Islands all season, and the shore hand and line boats did well, averaging about 40 barrels. The boats fishing for cod on the banks off Cape Gaspé report having seen large schools passing north and west, some of these schools were seen as far up the river St. Lawrence as Cape Chatte.

Except at the Magdalen Islands no regular mackerel fishing carried on. I am inclined to believe that if the mackerel had been well baited, a considerable fishery might have been made in the Bay Chaleurs and in Gaspé Bay.

SEALS.

The seal fishery shows a slight improvement, the yield being 21,038 skins, as against 18,971 in 1892. There are not now as many vessels carrying on this fishery as we formerly had. Owing to the decrease in the value of the oil, it does not pay to renew the vessels, and as these become worn out or lost their places are not taken by others.

I see that it is again proposed to fit out the steamer "Newfoundland" at Halifax, for the seal fishery in the gulf. There is no doubt that immense numbers of young seals are pupped on the ice between the east point of Anticosti and Rich Point in Newfoundland, and such of the Newfoundland steam sealers as come into the gulf usually make fair voyages. There is less risk of entirely missing the seals than there is on the outer coast of Newfoundland.

BAIT.

Herring were more than usually constant for bait purposes on the south coast throughout the season, while capelin were as abundant as ever on the north shore. A large quantity of frozen spring herring was put up at some of the fishing stations, though owing to the fairly regular supply of fresh bait, it was not in such demand as it is sure to be when fresh bait is scarce, yet it was used to some extent, and the prejudice against its use at first shown by the boat fishermen is disappearing.

SYNOPSIS OF OVERSEERS' REPORTS.

BONAVENTURE COUNTY—RESTIGOUCHE SUBDIVISION.

Overseer Verge reports the salmon fishery as holding its own, with a slight increase. The weather during the month of June being extremely dry and warm, the salmon kept out in deep-water, and only reached the fluvial waters of the upper Restigouche and branches late in the season; fish were reported in the Upsaltquick and Tom Kedgwick late last fall in much greater numbers than usual. Owing to the dry, warm weather, the estuary nets had to be taken up early, as it was impossible to keep them clean, the nets near tide head where the water was cooler, and there was more current, so that they did not foul; did well in July.

The smelt fishery with bag-nets under the ice is rapidly developing in the Restigouche, and is likely to become as extensive an industry as it is on the Miramichi. Fifty licenses were issued last season for the coming winter. Mr. Verge has already sent in over 200 applications.

Mr. Verge knows of no abuse or violation of the fishery regulations in his subdivision.

CARLETON SUBDIVISION.

Overseer Cyr reports an improvement in the salmon fishery of 25,000 pounds over last year. This was due to the fine weather, and the fact that the fish remained in the salt water instead of going directly up the rivers.

The cod-fishery was about the same as usual, only one lobster cannery was opened in this subdivision; lobsters were scarce. Spring herring were abundant, and the fishermen took all they wanted; a considerable quantity were salted for market. Fall herring and mackerel were scarce.

BONAVENTURE SUBDIVISION.

Overseer Smith reports a slight improvement in the salmon fishery, though it was not up to an average. Lobster fishing began about the 1st of May; four canneries were opened; they had to close down early owing to the scarcity of lobsters. Spring herring was an average catch. Cod fishing was fair in summer, though bait was scarce, and fishermen had to use clams. The fall catch of cod was good, being better than it has been for years, owing largely to the abundance of small herring which struck in September and remained on the coast till the end of November, giving the fishermen plenty of bait. Some boats at Paspebiac landed as much as thirty drafts a week. There was no abuse of the regulations in this subdivision. Mr. Smith says breakwaters for the protection of fishing boats are badly needed at Capelin and Bonaventure East. There is no chance for fishermen to save large boats at either of these places. During a breeze of wind in August all the boats moored out between Bonaventure and New Carlisle were carried away and lost; this would not have happened had there been any place to shelter them.

PORT DANIEL SUBDIVISION.

Overseer Ross reports cod fishing began earlier than usual, but fish were not plenty in May and June. July and August gave about an average catch, but in September, October, November and up to the 23rd of December the fishing was exceptionally good, and although the weather was rough the boats did well.

Lobster fishing averaged about the same as last year, though gales of wind during the best of the fishing in May caused serious loss of traps and greatly handicapped the fishermen. Summer herring was as usual a total failure. Mr. Ross can see no particular cause for this as spring and fall herring do not appear to be any getting scarcer. Breakwaters for the protection of fishing boats are much wanted at such places as Nouvelle, Shigawake and D'Anse au Gascon. They could be built at a very moderate cost, and would be the means of almost doubling the fishery at these stations, as the boats would not have to be beached.

Fisheries Report.

COUNTY OF GASPÉ.

GRAND RIVER SUBDIVISION.

Overseer Jones reports all kinds of fishing began early, though fewer nets were fished for salmon, yet the returns show nearly double the quantity caught in 1892. The quantity of lobsters canned is about the same as for the past year, there being a decrease of only about 3,000 pounds. Rough weather in May caused some loss of gear, which would much more than account for this decrease. The cod fishing was fairly good, it began early and continued until Christmas. Fall herring were abundant, though they were only taken to supply the local demand. This herring furnishes the principal winter food of the fishermen.

GASPÉ SUBDIVISION.

Overseer Annett reports the statistics show a decrease in the salmon catch but this is owing to a change in the limits, otherwise an increase of about 7,000 pounds would be shown. The herring fishery shows an increase of 679 barrels, and when the returns were being taken, herring were still being caught all along the coast. Lobsters show an increase of 13,988 pounds which is partly due to the opening of another cannery in Douglstown. The fishery was much impeded by a heavy storm which destroyed a great number of traps during the height of the fishing. In connection with this fishery quite a number of fishermen suggest that trawling for lobsters should be discontinued they contend that as the fish are caught in the night, it is not possible to sort out the small and berried lobsters till the morning, by which time a large number are injured before they can be sorted and liberated. There is an increase of 4,147 quintals in the cod-fishery. Fishing began on the 17th May and was good up to the close of the summer fishing on the 15th August; after this the weather was rough and the fall fishing was not up to the average, in spite of the fact that fish were abundant up to the end of the year. The smelt fishing shows a falling off of 808 pounds, this is due altogether to the failure of the fishing at Mal Bay where the smelt did not strike as usual.

Special guardians were put on to enforce the close season for salmon and trout at Peninsula, York River, Sandy Beach and St. John's River. The lobster canneries were all regularly visited, the fishery regulations were strictly observed. Mr. Annett is of opinion, and this is the opinion of fishermen generally, that some other means should be taken to collect parent salmon for the hatchery. Fishermen complain that all the fry put into other rivers are being taken from the Dartmouth, which is the smallest of the rivers emptying into Gaspé Bay, that this is unfair to the Dartmouth river, the fry taken from the Dartmouth fish should all go to the same river. Both fishermen and sportsmen are strongly of the opinion, that if at all possible, the parent fish should be had from the net fishermen, and that they should be taken fairly from among fish bound to all the rivers, and not from the Dartmouth river alone, as is now the practice.

FOX RIVER SUBDIVISION.

Overseer Thériault reports the cod and herring fishing in his subdivision as being fairly good. The season opened early and continued as long as it was possible to fish. There is only one salmon net fished in this subdivision, and there are no lobster canneries, the water deepens too rapidly to fish lobster traps.

MAGDALEN RIVER SUBDIVISION.

Overseer Lemieux reports that the cod fishing opened late in his subdivision, in fact only in July, but that in spite of this there is an increase of 1,480 quintals in the catch, bait was fairly abundant, and once the fishing did begin, the weather was fine which gave the fishermen a good chance. These white porpoises came down in June and no doubt drove the cod off. The porpoises were more abundant and came further down

the coast than usual. They left in the beginning of July and never came back again. Salmon fishing was poor. This is the third bad year in succession. There are but few nets in this division, and these are fished carefully, according to law, it is therefore difficult to account for the decrease in the salmon. It is to be remarked that the capelin have entirely left this coast; it may be that this has something to do with the disappearance of salmon.

MAGDALEN ISLAND SUBDIVISION.

Overseer Chevrier reports that the spring herring fishery in Pleasant Bay was good; this was largely due to the fine weather in May. The spring mackerel fishery with nets was also good. Fishermen complain that owing to the distance offshore at which they have to set their nets, the regulation concerning the taking up of the mackerel nets each morning bears hardly on them, they are of the opinion that the present regulations should be so amended as to come in force only on the 15th July. The summer and autumn fishing for mackerel was good, but the price of the fish fell. The cod-fishing was poor, several of the local fishing vessels went to Labrador, where they did well. The lobster fishing was about the same as usual, a number of lobster traps were seized and destroyed for being found in the water after the close of the season. This illegal fishing is done altogether in the eastern part of the division, about Grosse Isle. The only way to put a stop to it is for "La Canadienne" to make frequent visits in August and September.

COUNTY OF SAGUENAY—GODBOUT SUBDIVISION.

Overseer Comeau reports that owing no doubt to the very early and open spring, salmon made their appearance very early, and most of the fishermen being unprepared lost fully one-third of the best of the netting. One of the earliest nets put out, 29th May, caught on the first day fifty salmon. Most nets were put out only about the 7th June, and by the 20th June the best run of fish was over. A remarkable feature was the irregular manner in which the fish struck the shore, some stands getting forty or fifty fish a day, while neighbouring stands on either side would only be getting a few fish. This continued all through the season. The fish were a little larger than the average. The angling was fair in Godbout and Trinity rivers, considering the low state of the water in June and July. Cod were unusually abundant all over the division, they struck in earlier than usual, bait scarce in August and September. September and October were also stormy months, the scarcity of bait and the rough weather spoiled the fishing, but when the boats did get out, fish was always plenty.

Herring were abundant, but only a few fishermen regularly fit out with nets for this fishery. The same may be said of the halibut fishery—all of this fish that is taken is caught on the ordinary handlines while fishing for cod, and no distinct halibut fishery is carried on. Since the United States halibut fishermen have been prevented from fishing inshore, there has been a marked increase in the number and size of the halibut caught. Mackerel, for some years back, Godbout Bay seems to be the only place in this subdivision where mackerel are caught or appear. This year several very large schools were seen, but they did not come sufficiently inshore to permit of their being taken with the ordinary drag-seine. A couple of hauls were made, and one small school of nine barrels taken. At Pointe des Monts and Caribou Islets a few were taken in the herring-nets. Seal hunting was about the usual average. Since the Manicouagan Fish, Oil and Guano Company have abandoned their establishment at Manicouagan, seals have returned there as formerly. *Mr. Comeau* says the fishery regulations were well observed. Certain persons started a report that the Sunday close season for salmon was not observed, and he consequently made a careful inquiry and found that these reports were only founded on suspicion; with a view to be positive on this head he would like, next season, to be allowed to appoint a couple of guardians to watch certain nets, as his own movements are reported regularly along shore from post to post by the telegraph

Fisheries Report.

operators. Mr. Comeau advises that a larger mesh should be used for salmon-nets, and that trout-nets should not be used after the 15th of July, as at or after this date grilse are apt to be taken in the trout-nets. He would prefer to have the trout, after the date mentioned, taken with the seine.

MOISIE SUBDIVISION.

Overseer Migneault reports that the salmon fishing began on the 22nd of May, and though there was a smaller catch than last year, yet the fishing was above the average. The fly fishermen were on the river two weeks too late yet the six rods took 153 salmon. The cod fishing was excellent. The catch of halibut, made altogether by the cod fishermen was good. For some years back no halibut trawlers have visited this part of the coast, so that the halibut are steadily increasing. The herring fishing was not as good as usual. No mackerel were seen about Seven Islands Bay nor any where else in this division. Herring bait missed between the 15th August and the 15th September, but the cod fishing was not seriously interrupted, as clams are found abundantly at Moisie and Seven Islands. The only strange fishing vessels which visited this division during the season were two schooners from Halifax which carried on the cod fishing from Moisie during June and July.

MINGAN SUBDIVISION.

Overseer DuBerger reports the cod fishing in some localities of this division as being extra good, in some places the outfitters had to stop the supply of bait to fishermen as they could not cure the fish brought in, this to the loss of the fishermen. The herring fishing at Labrador made by vessels from Esquimaux Point was a complete failure. Mr. DuBerger advises that no more trap-net licenses be issued for his division, as he claims that before trap-nets were fished the fishermen used to be able to fish close inshore, while now they are obliged to go far out to the banks after fish. He favours the increase of the fishing bounty to fishermen; would advise an increased bounty to Indians, and the supplying of fishing outfits to the Mingan Indians, so that they could be trained to fishing, and give up hunting, as the fur in the interior is getting scarce; he would also grant tidal salmon-nets wherever applied for. The salmon catch in the Mingan division was double that made in 1892. A severe gale occurred on the 29th and 30th of August, which caused a great loss of fishing boats between Thunder River and Mingan.

NATASHQUAN SUBDIVISION.

Overseer Gaudin reports that the spring seal fishery though not as good as some years, was yet much better than last year. The salmon fishery has been the best for the last six years. Angling on the Natashquan was good, one rod having taken twenty-two fish in one day. The spring school of cod was again very large, and remained in shore until the 20th July; the weather was fine throughout, so that no time was lost to the fishermen. One boat's crew at Natashquan harbour took 450 quintals (green) in twenty-four days. The boats that fished on the banks during the remainder of the season also caught more fish than during other years. Capelin were plentiful during the spring fishery, afterwards clams and launce were used for bait. About 300 barrels of herring were taken at Natashquan during the middle of September; this reminded the fishermen of old times, as it is some years since any herring were taken at Natashquan.

The packers of lobsters at Watasheeshoo found plenty of lobsters to occupy them during the short time they could fish. These people complain of the shortness of the season, and Mr. Gaudin thinks with reason. They only get their traps out a month later than fishermen on the south shore, and yet they have to close down at the same date. All the cod caught in this subdivision is bought in by the firm of Robin, Collas & Co., and is destined for foreign markets; the salmon, herring and lobsters were all shipped to Quebec.

ST. AUGUSTIN SUBDIVISION.

Overseer LeGouvé reports the salmon fishing as being better than in 1892, the returns giving 100 barrels for that year, whereas this year 148 barrels have been taken. The cod fishery was again an abundant one 10,476 cwt. having been taken by the shore boats in the division. This part of the coast was visited by a large number of fishing vessels from Nova Scotia and Newfoundland, as most of these vessels are now fishing trap-nets. *Overseer LeGouvé* is afraid that the number of these nets is being overdone, and the salmon-net fishing stations of the resident inhabitants are being crowded by the trap-nets of these strangers. He thinks it will be well to have "La Canadienne" down much earlier on the coast than she was last season, to look after the fishing done by these vessels, as it is quite impossible for one local overseer to patrol the coast from Coacoachoo to Chicatica. Herring missed altogether. Capelin was abundant during the time of the summer cod fishing, at other times clams and launce were used for bait. The sedentary seal fishery was not up to the average.

BONNE ESPÉRANCE SUBDIVISION.

Overseer Whitely reports the salmon fishery as being below the average. This was due to the backing up of the drift ice, which compelled many of those who fished exposed stations to take out their nets while the salmon were running. The cod fishery was again a most abundant one, the catch being 28,150 quintals as compared with 24,320 quintals in 1892, which was also an exceptionally good year.

Herring missed entirely over all this part of the north coast. A larger number of vessels than usual came up along this shore to meet the cod before going down on the Labrador; they nearly all did well. All the codfish taken in this subdivision is shipped either to Halifax or St. John's, Newfoundland or directly to market in England or the Mediterranean. Salmon, seal-skins and seal oil either go to Halifax or Quebec.

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

WM. WAKEHAM.

SYNOPSIS OF FISHERY OVERSEERS' REPORTS IN THE PROVINCE
OF QUEBEC (EXCLUSIVE OF THE GULF DIVISION) FOR THE
YEAR 1893.

SOUTH SHORE RIVER ST. LAWRENCE, FROM CAPE CHATTE TO POINT LEVIS.

Overseer Johnny Joncas reports a considerable increase in the general yield of the fisheries under his charge. While salmon net-fishing was the best enjoyed there for years, angling was not proportionately improved, although salmon seemed plentiful, they did not take the fly, owing perhaps, to the water being low and very clear. Herring and cod fishing were good, especially in the lower part of this district, where large captures of the latter were made even after the 10th November. The outlay of bringing this fish to market (over 60 miles by wagons) reduces the profits to a minimum. With the exception of a case of saw-dust violation, where the party was prosecuted and fined \$20 and costs for allowing rubbish to escape from his mill into River Blanche, no other contravention came to the notice of this officer. The Matane mill was closely watched by day and night, and no poaching was carried on there this season.

The total value of these fisheries are given at \$23,500, an increase of \$5,500 over last year's product.

Fisheries Report.

Overseer L. E. Grondin reports an increase in the yield of salmon and sardines, but a considerable shortage in herring. The latter he attributes to the prevalence of porpoise around the coast at that time. The total yield is valued at \$15,000, being a difference of \$9,000 less than the season of 1892.

Mr. Grondin also collected the statistics of fisheries for the neighbouring division in the vicinity of Rimouski. There also, all kinds of fish make a favourable showing with the exception of herring, which entirely failed. The total yield of ex-overseer Martin's division is valued at about \$7,000.

Overseer Napoléon Levesque reports a great diminution in the yield of the fisheries of the district as compared with the season of 1892. This is especially noticeable in herring and coarse fish. In fact, the total value only amounts to \$8,400, a decrease of over 80 per cent.

Overseer Xavier Pelletier also returns a large decrease in the yield of the fisheries of his division. Where he reported nearly 500 barrels of herrings in 1892, this year he only returns 11 barrels. The shad fishery was also a failure; but a fair catch of salmon was effected at St. Denis, 96 white whales (*marsouins*) were captured at River Ouelle. The whole catch of fish is completed at a value of \$12,000.

NORTH SHORE, RIVER ST. LAWRENCE, FROM QUEBEC TO BERSIMIS.

Overseer L. P. Huot reports the past fishing season as generally satisfactory. The slight decrease noticed in salmon, shad and whitefish is ascribed to the smaller number of men engaged in those fisheries. Eels, the staple fish of this division, were plentiful, their yield exceeding 200,000 pounds, a surplus of 63,000 pounds over the catch of the previous year. Pickerel also shows a large increase. The fishery laws were well observed. The total yield of the fisheries of this district valued at \$18,000, (an increase of 50 per cent over that of last season) is all disposed of on the local markets of Québec City and vicinity.

Overseer Ulysse Bhéreur reports the salmon fishery of his district as steadily declining, in fact only 500 pounds were taken this season. The yield of the herring and sardine fisheries was the smallest on record in this district. No sufficient reasons are given for this discrepancy. The fishermen who have done extensive repairs to their porpoise fishery were greatly disappointed in capturing but a single white-whale (*Marsouin*). Eels seem the only kind of fish which give satisfactory results. Capelin fishing was a total failure. The total value of the fisheries of this division only amounts to \$5,570, a decrease of 33 per cent as compared with last year's produce, which was then considered a very poor one.

Overseer L. N. Catellier reports a noticeable improvement in almost every kind of fish in his district. The salmon net fishermen are specially satisfied with their season's operations, being over 40 per cent over that of 1892. The rivers are reported well stocked with parent fish, one guardian states that in a single section of the Ste. Marguerite River, he counted over 300 salmon. Two patrolmen were constantly employed between Baie des Rochers and Bersimis during four months, with beneficial results. Illegal trout fishing was detected and the parties fined. The total value of the Saguenay district fisheries is given at \$22,700, being an excess of nearly \$5,000 over the product of the previous year.

QUEBEC TO UPPER OTTAWA.

SHERBROOKE AND MEGANTIC DIVISIONS.

(Total value of fisheries given at \$12,434.)

Overseer P. W. Nagle reports fish as plentiful as ever in the waters of Sherbrooke and Stanstead, about 30,000 pounds being taken this season, half of which were trout. This officer states he used his best endeavours to prevent poaching during the close seasons without detecting any irregularities, and he is aware of no existing abuses in the district under his charge.

Overseers Joel Shurtleff and *A. L. Darche* both return a slightly increased catch of fish in their respective divisions, consisting chiefly of pike, pickerel, maskinongé, bass and trout.

Overseer Allan McLeod states that no net fishing is allowed in Lake Megantic, and that most of the fish is caught there by sportsmen with hook and line and trawl. A mill-dam on the Chaudière River, only a couple of miles from its outlet into the lake is still unprovided with a fish pass, but the owners have promised to place one in next spring. This officer seized during the close season twenty gill-nets and bag-nets, besides several night-lines.

MAGOG AND BROME DIVISIONS.

Overseer N. A. Beach returns about an average catch of fish, but makes no report.

Overseer Horace Greene states that fishing for bass and lake trout was satisfactory. The latter fish are found on their breeding grounds as early as the 1st October, and by the 15th November are done spawning and have returned to deep water. This officer claims to have been out on Memphremagog Lake twenty-one nights during close season, and at times found the water so shallow that he could see large numbers of lunge, which would have fallen an easy prey to poachers, had not the guardians been vigilant. He is of opinion that the close season was fairly well observed. Formerly it was not uncommon to see lunge being peddled in the villages during close seasons, but for the past two years no such occurrence was noticed. The yield of the fisheries of this large lake is valued at \$7,765.

MISSISQUOI BAY DIVISION.

Overseer P. E. Luke reports that the spring fishing season was short, but while it lasted fishermen did well. Doré came into the bay early, and good catches were effected. Shad fishing was almost a failure, only three seines fishing for them. The close seasons are reported as well observed, and no abuses came to his knowledge. The dam owned by the Eastern Township Bank was carried away by the ice last spring and will not be rebuilt, thus leaving a free passage for the ascent of fish. Mr. Luke visited the other mill owners on July last and served them with the necessary notices to construct efficient passes in their dams, but so far none have complied, although they all expressed willingness to do so at the time. The total value of these fisheries does not reach \$3,000.

RICHELIEU RIVER.

Overseer James Finley, who has charge of the above named river from Lake Champlain to St. John's, reports that fish are gradually becoming scarcer. However, the eel fisheries which in 1892 only yielded 6,200 pounds, this year show 36,000 pounds, and Mr. Finley is of opinion that even this is underrated, as the principal parties refused to give him the required information, which he had to seek at the ex-

Fisheries Report.

press office. During his inspection trips Mr. Finlay did not notice saw-dust in sufficient quantity to injure fish, and he thinks that the fishery laws were generally adhered to.

Overseer J. O. Dion says that in the lower part of the Richelieu River, the fishing season was very short owing to ice, and the water became so low that even as early as the middle of May, seines could hardly be used. The fish pass in St. Ours dam is not yet in proper order to allow the ascent of fish. The restriction of past years have had the good effect of allowing the fish to thrive, for they are certainly not decreasing. Quite a few bass and pickerel were captured with hook and line. The total yield of Richelieu River is computed at \$8,200, an increase of nearly 40 per cent over 1892.

CHATEAUGUAY DIVISION.

Overseer Joachim Laberge reports the quantity of fish taken in his division to be equal to that of last year, with the exception of sturgeon, which show a considerable decline. Several fishermen gave up seining to adopt angling and trawling, and are satisfied with the results. All the fish of this division are sold on the Montreal markets at remunerative prices. After the spring freshets, the waters retire so suddenly that many fish are left dry on the low lands. A fishway of the Hockin model was built in the dam owned by the Grey Nuns at Châteauguay during the season, and this officer will endeavour to ascertain its efficiency in the spring. No violations of the fishery laws were reported. The total catch is valued at \$9,850.

BEAUHARNOIS DIVISION.

Overseer John Kelly states that there was a diminution in the fisheries under his charge, especially in bass and maskinongé, which he cannot account for, unless due to the excessive use of the seine in the past. The two guardians employed by him rendered valuable services in checking the illegal use of explosives to kill fish. The fish-ways are all reported in good repairs. These fisheries are valued at \$8,950 against \$11,000 last year.

LAPBAIRIE DIVISION AND VICINITY.

Overseer John Morris states that the number of fishermen was less than usual, as it was too late when they learned that soft fish permits could be obtained, but those who did fish in the spring, had the best catch on record for the last twenty years. Unfortunately there was no fall fishing to complete a good season, as the water was too low. Large quantities of young *dorés*, almost unfit for food, were sent to Montreal from other districts. The value of the total yield does not reach \$4,000.

VERCHÈRES DIVISION.

Overseer George Magnan reports a small catch, for even as early as July the waters were too low to fish. Nearly all the yield of this district, of which eels are the principal fish, is disposed of upon the Montreal markets. This officer is credibly informed that armed poachers have fished without licenses, but should other attempts be repeated, he has made arrangements to be notified of their reappearance, and will endeavour to capture them.

RICHELIEU COUNTY.

Overseer Narcisse Lavallée returns a small catch of fish about the same as last year, valued at \$1,290.

Overseer Picotin, of St. Francis River, states that fish are steadily decreasing in the said stream.

YAMASKA COUNTY AND RIVER.

Overseer Denis Shooner and J. Charboneau return a slightly increased yield of the fisheries in their districts, consisting chiefly of coarſe fiſh. The entire catch amounts to \$7,500, being an increase of \$2,400 over the product of 1892.

NICOLET DIVISION.

Overseer George Boisvert reports an increased catch over that of last year of about \$2,000. The fisheries of this district consist mostly of coarse fiſh.

THREE RIVERS DIVISION.

Overseer Charles Vadeboncœur reports the fisheries of that district as having dwindled down to less than used to be returned for tom-cods alone. Even the latter fishery must have been a failure, as only 2,500 bushels are mentioned. The whole capture of fish does not reach \$3,000.

BERTHIER, MASKINONGÉ AND MONTCALM.

Overseers S. A. Grant and Wm. Ritchie return about the same quantity of fish as last year, valued at \$11,000, but made no report.

TERREBONNE DIVISION.

Overseer Joseph Lauzon states that with the exception of bass, fish are not decreasing. Hook and line fishermen did well. The fishery laws were well observed.

Overseer Jos. Filiatrault states that speckled trout seem as plentiful as ever, but not so many are caught since the prohibition of fishing for them through the ice, as it was mostly during those months that they were taken and shipped in a frozen state. However, numerous sportsmen visited these waters during the summer and quite a few were taken.

The total value of the Terrebonne fisheries is reckoned at \$4,315.

LAKE OF TWO MOUNTAINS DIVISION.

Overseer Théo. Sabourin and Julien Monpetit return about an average catch of fish, valued at \$2,780, but neither made any report.

RIVER BEAUDET DIVISION.

Overseer Joseph Boivin states that there are only three regular fishermen in his district, the others are only angling and trawling for amusement. These fisheries consisting chiefly of coarse fish are valued at \$3,450.

LOWER OTTAWA DIVISION.

Overseer R. W. Jones reports that about the same quantity of fish was taken as during the previous year. Some kinds of fish as shad yielded slightly more, others somewhat less than during 1892. As the fishermen in this division keep shifting from one place to another, it is more difficult to watch them, however, the close season was fairly well observed. There are no fish-ways in his district, mill-owners say, why should they be compelled to build fish-ways in their dams while there are none in the Carillon dam? The total capture is valued at \$4,660.

Fisheries Report.

UPPER OTTAWA DIVISION.

Overseer Joseph Marion states that the number of men engaged in fishing this year was smaller than usual, several going to the Lower Ottawa below Carillon to seek better grades of fish. The thirty licensed fishermen fishing on the Ottawa during twenty-eight weeks, taking on an average 75 strings of fish each per week, which at $1\frac{1}{2}$ pounds each would give a total of 94,500 pounds mostly coarse fish, valued at \$4,000.

The Gatineau and other lakes of the county of Ottawa seem to be still well stocked with fish supply, and good catches have been made, especially in the large lakes of Thirty-one Mile and Pemichongan. The whole yield of these inland waters is valued at \$13,000.

PROVINCE OF QUE-

RETURN showing the Number and Value of Vessels, Boats and Fishing Materials, the of Bonaventure, Province

RESTIGOUCHE SUBDIVISION

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.						Salmon, fresh in ice, lbs.	
	Vessels.			Boats.			Gill Nets.		Trap Nets.		Seines.			
	No.	Tonnage.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.	No.	Fathoms.		Value.
		¢			¢			¢	¢		¢			¢
Head of Tide to Maguasha.....				20	400	24	5050	5050	45	2250				42666

CARLETON SUBDIVISION

Maguasha and Nouvelle.....				60	900	120	2500	1200			15	340	225	17000
Carleton.....				95	1425	220	3800	1900			25	750	500	12000
Maria.....				98	1470	250	3900	1960			24	720	480	18000
Total.....				253	3795	590	10200	5060			64	1810	1205	47000

BONAVENTURE SUBDIVISION

New Richmond.....				20	150	22	1400	700						4000
Black Capes.....				28	170	30	2800	1700						3700
Capelin.....				170	2000	150	6000	2600			12	360	200	
Bonaventure.....				210	3100	250	10000	5000			53	1225	790	1200
New Carlisle.....	1	100	2	35	350	35	1000	450			25	500	500	
Paspébiac.....				110	2200	240	1450	725			20	500	500	
Total.....	1	100	2	573	7970	727	22650	11175			110	2585	1990	8900

PORT DANIEL SUBDIVISION

Hope.....				55	1320	95	1035	602			10	245	289	1000
Nouvelle.....				59	1694	84	436	510			9	259	203	
Shigawake.....				70	691	72	876	391			2	48	60	
Port Daniel.....	1	25	400	4	182	3423	249	3019	1825		16	422	500	29025
L'Anse aux Gascons.....				175	5035	201	3616	2368			20	568	754	5200
Totals.....	1	25	400	4	541	12163	701	8982	5696		57	1542	1806	35225

TOTAL FOR COUNTY

Restigouche Subdivision.....				20	400	24	5050	5050	45	2250				42666	
Carleton.....				253	3795	590	10200	5060			64	1810	1205	47000	
Bonaventure.....	1	100	2	573	7970	727	22650	11175			110	2585	1990	8900	
Port Daniel.....	1	25	400	4	541	12163	701	8982	5696		57	1542	1806	35225	
Totals.....	2	35	500	6	1387	24328	2042	46882	26981	45	2250	231	5937	5001	133791

Fisheries Report.

BEC—Gulf Division.

Number of Men employed, with the Kinds and Quantities of Fish, &c., in the County of Quebec, for the Year 1893.

Head of Tide in Restigouche to Maguasha).

KINDS OF FISH.													FISH PRODUCTS.			TOTAL VALUE.						
Herring, salted, barrels.	Herring, fresh or frozen, lbs.	Herring, smoked, lbs.	Mackerel, salted, brls.	Mackerel, fresh or preserved (in cans), lbs.	Lobsters, preserved in cans, lbs.	Lob's, alive or fresh, tns.	Cod, dried, cwt.	Cod, tong's & sod's, brls.	Hake, dried, cwt.	Haddock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Clams, barrels.	Fels, barrels.		Tom Cod or Frost Fish, lbs.	Fish Oils, galls.	Fish used as bait, brls.	Fish used as manure, brls.	\$	cts.
						2					2000		125724			572600						18,779 40

(Maguasha to Big Cascapedia River).

300	4000	15					250							60	5		50	30	4900			9,030 00
450	7500	35					540								10		120	60	22870			19,168 00
1200	8900	40					1050								25		180	120	40360			35,145 00
1950	20400	90					1840							60	40		350	210	68130			63,343 00

(Cascapedia to Paspebiac Point).

100	1000						1100										20	15	400			1,500 50
150	1500						2506											4	600			6,701 00
800	3000	2000	13920				600				600						900	279	6000			20,937 30
1500	7000	600	10560			600	4		10		700			150			1875	600	7400			17,625 40
200	1000		3860														420	175	3000			3,390 90
400	1500					4000	5	150	150					350			3000	1100	500			25,705 00
3150	15000	2600	28340			8200	9	150	160		1300			500			6215	2173	17900			75,860 10

(Paspebiac Point to Point Maquereau).

306						1691											1000	558	300			10,573 50
112						588											483	235	89			8,898 64
189			36846			372											396	594	145			6,922 40
215			23400			2212											1922	1380	722			30,689 70
499,8400			28860			2212											1400	1763				18,843 60
			16540																			
1321,8400			105646			8569											5200	4530	1256			75,927 84

OF BONAVENTURE.

						2				2000			125724		572600							18,779 40
1950	20400	90				1840								60	40		350	219	68130			63,343 00
3150	15000	2600	28340			8200	9	150	160		1300			500			6215	2173	17900			75,860 10
1321,8400			105646			8569											5201	4530	1256			75,927 84
6421,8400	35400	90	2600	133986	2	18609	9	150	160	2000	1300	125724	560	45	72600	11766	6913	87286			233,910 34	

RETURN showing the Number and Value of Vessels, Boats and
GRAND RIVER SUBDIVISION

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.					
	Vessels.			Boats.			Gill-Nets.		Seines.			
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Fathoms.	Value.
		¢			¢			¢			¢	
Newport.....				137	7400	304	5880	2345		5	240	150
Grand Pabos.....				20	1000	50	800	200		2	100	100
Little Pabos.....				33	1300	70	1200	500		4	80	80
Little River, west.....				15	650	40	800	350		1	20	30
Grand River.....				75	3350	163	3342	1370		4	100	100
Little River, east.....				55	2250	110	2400	600		3	80	75
Cape Cove.....				87	4100	162	3700	1370		10	263	220
Bonaventure Island.....				18	1200	38	980	100				
Percé.....	3	160	3500	101	4600	202	4200	1400		5	125	110
Corner of Beach.....	1	80	2000	4	120	7	1500	450		1	25	36
Totals.....	4	240	5500	4	549	25970	1146	24802	8685	35	1033	901

GASPÉ SUBDIVISION

Barachois.....				155	6959	177	1730	1630		10	350	350
Mal Baie.....				55	1710	68	1210	610		3	84	125
Point St. Peter.....				67	1660	92	2220	745		4	112	140
Chien Blanc.....				62	1400	70	960	500		3	75	80
Bois Brûlé.....				30	1000	28	320	160				
Seal Cove.....				33	560	31	665	435				
Douglastown.....				85	2800	134	1775	1175		8	240	160
Sandy Beach.....				32	800	41	2110	2000				
Gaspé, North and South.....				36	380	40	3264	2300		16	480	816
Peninsula.....				18	290	28	1969	1610				
Cape Ozo.....				26	340	36	1292	1092		1	20	8
Little Gaspé.....				15	250	14	394	284				
Grande Grève.....				22	520	22	716	526		5	150	200
Ship Head.....				46	980	48	970	580		2	40	50
Cape Rosier.....				60	1140	80	800	200		2	50	50
Totals.....				742	20789	909	20395	13847		54	1601	1979

Fisheries Report.

Fishing Materials, &c., in the County of Gaspé, &c.—Continued.

(Point Maquereau to Barachois, Malbaie).

KINDS OF FISH.											FISH PRODUCTS.		Total Value.			
Salmon, salted, bris	Salmon, fresh in ice, lbs.	Salmon, preserved in ice, lbs.	Herring, salted, bris.	Herring, fresh or frozen, lbs.	Mackerel, salted, bris.	Mackerel, fresh or preserved (in cans), lbs.	Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Cod, tongues and sounds, bris.	Haddock, cwt.	Halibut, lbs.	Smelts, lbs.		Fish Oils, galls.	Fish used as bait, bris.	\$	cts.
	6500		535	50000			42000	7550	13	53	2100	2500	3420	3015	50,603	50
	10000		158	25000		4500		2000	3	8			1500	245	13,526	50
	3000		120				2500	4200	3	25	200	700	1600	770	22,407	50
			79				20000	1100	2	10			500	420	8,990	50
			208		4		8000	7080	11	15	402	3000	4890	2765	40,428	20
			110				4500	4500					2250	1055	23,227	50
			185				27500	8400	3	1300	300	500	3700	4190	54,882	50
			18					1800		50			800	810	9,891	00
2	5500	500	90		1		50000	15500		100	800		5000	2350	84,331	00
	16000		25				4000	700					500	88	6,554	50
2	25000	16500	1528	75000	5	4500	154000	52830	40	1561	3802	6700	24160	15708	314,842	70

(Barachois of Malbaie to Cape Gaspé).

	1100	295				34868	6570				2000	3270	2290	40,837	02
	864	160					7818					2080	1060	38,495	80
	320	120					3100	2				1940	1150	17,075	00
		50					1780					900	500	9,345	00
		80				11280	960					480	320	6,931	20
	447	60				7680	400					200	200	3,614	60
	1240	350				16704	3200					1600	1200	21,001	56
	6468	140		5			293					145	85	3,497	60
	17213	10									79500			7,462	60
	10891	80		10			140					70	50	3,411	20
	4039	100				9936	500					250	250	5,373	84
	1100	55					240					130	120	1,779	50
	1285	130					850					430	280	5,259	00
	1700	175					1630					850	540	9,612	50
		300					1600					800	400	9,470	00
46667		2105		15		80468	29081	2			81500	13145	8445	83,166	42

RETURN showing the number and Value of Vessels, Boats and

FOX RIVER SUBDIVISION

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.					
	Vessels.				Boats.			Gill nets.		Seines.		
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Number.	Fathoms.	Value.
			\$			\$			\$			\$
Anse à Louise				70	1,200	31	1,444	720		1	30	10
Jersey Cove				36	540	25	750	270				
Anse à Grisfonds				140	3,400	24	3,000	1,800		6	180	280
Fox River				160	4,000	60	3,900	2,000		6	190	280
Little Fox River				30	450	38	700	290				
Little Cape				40	800	175	1,320	660				
Echourie and Big Cove				23	345	150	575	280				
Pointe Jaune				18	325	46	480	200				
Anse à Valeau				26	468	75	500	230				
Totals				543	11,528	604	12,669	6,450		13	400	570

MONTS LOUIS SUBDIVISION

Grand Etang				22	275	22	600	300		2	80	60
St. Yvon				40	700	38	1,150	725				
Chlorydorme				46	850	43	1,300	760				
Petite Anse				22	180	22	600	250				
Frigate Point				20	100	20	450	200				
Grande Vallée				24	200	30	300	110				
Little Vallée				42	700	44	1,150	600		1	30	50
Magdalen River				20	250	28	546	175				
Manche d'Epée				10	80	15	244	65				
Gros Mâle				20	140	29	300	80				
Anse Pleureuse				20	175	25	400	150				
Mont Louis				36	520	40	725	375		2	80	55
Rivière à Pierre				10	60	11	180	50				
Totals				332	4,230	367	7,945	3,840		5	190	165

STE. ANNE DES MONTS SUBDIVISION

Claude River				18	340	36	560	560				
Marsouins				7	210	14	260	260				
Martin River				6	200	12	200	200				
Ste. Anne				55	1,900	110	1,630	1,620		2	120	80
Cape Chatte				21	1,030	42	1,240	1,240				
Totals				107	3,700	214	3,880	3,880		2	120	80

Fisheries Report.

Fishing Material, &c., in the County of Gaspé. &c.—Continued.

(Cape de Rosier to Fame Point).

KINDS OF FISH.											FISH PRODUCTS.			TOTAL VALUE.		
Salmon, salted, brls.	Salmon, fresh in ice, lbs.	Herring, salted, brls.	Mackerel, salted, brls.	Cod, dried, cwt.	Cod, Tongues and Sounds, brls.	Haddock, cwt.	Trout, lbs.	Halibut, lbs.	Clams, brls.	Eels, brls.	Tom-cod or Frost Fish, lbs.	Fish oils, galls.	Fish used as bait, brls.	Fish used as manure, brls.	\$	cts.
		350	2	2,900	10	50		6,000				2,000	850	100	17,653	00
		180	14	1,400	10	15		2,000				900	265	100	8,466	00
	520	550	2	6,700	15	20		15,000				6,200	1,600	150	39,432	00
		700	4	9,000	15	60		20,000				8,000	2,150	200	52,591	00
		160	5	1,125	8	10		3,000				1,000	200	100	7,017	50
		200	6	2,500	12	10		4,000				3,700	3,500	150	19,594	00
		60	4	1,080	10	20		1,800				850	170	80	6,171	00
		100	4	1,250	8	15		2,000				1,000	175	100	7,176	00
		150	8	1,400	10	30		3,000				1,200	330	100	8,617	00
520	2,450	49	27,355	98	230	56,800	24,850	9,240	1,080	166,717	50					

(Fame Point to Rivière à Pierre).

		45		920	2	25		3,000		3		800	160		5,340	00
1	200	80		1,650	3	30		2,700				1,000	300	30	9,111	00
1	1,400	125		1,800	4	30		7,000				1,100	450	20	10,928	50
		50		500	2	10		1,800				300	175	10	3,097	50
		40		400	2	3		1,000				250	100		2,360	50
	400	40		300	1	1	220	2,000				150	80		2,025	50
		100		1,700	1	4		5,000				900	250		9,359	00
	1,100	60		400	1			300				100	75		2,482	50
	600	60		150		1		600				350	60		1,358	50
1		90		550	1	2		600				350	100		3,263	00
	2,550	65		550				400				350	100		3,607	50
	1,000	200		700				600				400	200		4,770	00
		55		200				200				150	50		1,302	50
3	7,250	1,010		9,820	17	106	220	25,200		3		6,200	2,100	60	59,006	00

(Rivière à Pierre to Cape Chatte)

		78		460	2			415			66	110	100	50	2,704	80
		56		238	1			300			36	70	65	26	1,503	30
		50		208	1			318			41	60	60	32	1,334	85
	820	720		1,700	3		3,200	2,150	9	270	240	240	250	105	12,201	00
		350		500	2		1,200	800	6	150	120	200	80	4,470	50	
820	1,254			3,106	9		4,400	3,983	15	563	600	675	293	22,214	45	

RETURN showing the Number and Value of Vessels, Boats and
MAGDALEN ISLANDS

NAME OF DISTRICT.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.						KINDS OF FISH.				
	Vessels.			Boats.			Gill-Nets.		Trap-Nets.		Seines.		Salmon, salted, lbs.	Salmon, fresh, in ice, lbs.	Salmon, preserved in cans, lbs.		
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.	No.				Fathoms.	Value.
		%			%			%	%		%						
Amherst Island.....	4	128	2600	85	133	5320	293	22120	14816			8	1645	2555			
Entry Island.....					5	200	14	1160	464								
Le Moulin.....					13	520	33	2400	960								
Bryon Island.....					60	1800	120	160	480								
Grosse Isle and Old Harry.....					30	1200	66	420	256								
Grand Entry.....					10	300	25	225	90	1	300						
Wolf Island.....					80	240	180										
S. Beach, Pointe Basse and Little Brig.....					53	1590	128	1300	520								
Etang du Nord... House Harbour....	12	540	17000	96	4	120	10					3	375	600			
												1	120	250			
Totals.....	16	668	19600	181	486	17170	1129	33865	20018	2	600	12	2140	3405			

TOTALS FOR THE

Grand River Sub-division.....	4	240	5500	4	549	25970	1146	24802	8685			35	1033	901	2	25000	16500
Gaspé Subdivision.....					742	20789	909	20395	13847			54	1601	1979		46667	
Fox River.....					543	11528	624	12669	6450			13	400	570		520	
Magdalen Riv. ".....					332	4230	367	7945	3840			5	190	165	3	7250	
Ste. Anne's ".....					107	3700	214	3880	3880			2	120	80		820	
Magdalen Islands Subdivision.....	16	668	19600	181	486	17170	1129	33865	20018	2	600	12	2140	3405			
Totals.....	20	908	25100	185	2759	83987	4389	103556	56720	2	600	121	5484	7100	5	80257	16500

Fisheries Report.

Fishing Material, &c., in the County of Gaspé, &c.—Continued.

SUBDIVISION.

KINDS OF FISH.													FISH PRODUCTS.				Total Value.		
Herring, salted, brls.	Herring, fresh or frozen, lbs.	Mackerel, salted, brls.	Mackerel, fresh or preserved, lbs.	Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Haddock, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Clams, brls.	Fels, brls.	Tom-cod, lbs.	Fish Oils, galls.	Seal-skins, No.	Fish used as bait, brls.			Fish used as manure, brls.	$	cts.
1670	7000	1862	119664	3011	30	550			6400	235	85		2050	1600	1670	625	74,162	96	
105		121	12960	50						8			40	25	80		4,413	15	
173		215		486	5	80				22			398	240	140	140	7,154	70	
780		1800	72000	250		50				60			190	2000	660		43,956	00	
436		665	48528	100						40			70	625	350		20,050	17	
180		180	156912	125		15				20			75	100	160		26,407	68	
1000		1000	9600							80			80	80	200		20,676	00	
550		790	42720	195		20				70			100	189	495		21,832	05	
980		1352	180916	3000	10	150				150			2200	150	850	300	66,033	74	
200		60								6			41636	5400	40		25,234	40	
6074	7000	8045	643300	7217	45	865			6400	691	85		46839	10409	4645	1065	309,920	85	

COUNTY OF GASPÉ.

1528	75000	5	4500	154000	52830	40	1561		3802	6700			24160		15708		314,842	70	
2105		15		80468	29081	2				81500			13145		8445		183,166	42	
2450		49			27355	98	230		56800				24850		9240	1080	166,717	50	
1010					9820	17	106	220	25200			3	6200		2100	60	59,006	00	
1254					3106	9		4400	3983			15	563	600	675	293	22,214	45	
6074	7000	8045	643300	7217	45	865			6400	691	85		46839	10409	4645	1065	309,920	85	
14421	82000	8114	4500	877768	129409	211	2762	4620	89785	94600	706	88	563	115794	10409	40813	2498	1055867	92

RETURN showing (the Number and Value of Vessels and Boats engaged in the Number of Men employed in the Fishing Industry of the

GODBOUT SUBDIVISION

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.									
	Vessels.			Boats.			Gill Nets		Trap Nets	Weirs.	Seines.					
	No.	Tonnage.	Value.	Men.	No.	Value.	Fathoms.	Value.	No.	Value.	No.	Value.	No.	Fathoms.	Value.	
			¢			¢		¢		¢		¢			¢	
Point aux Outardes.....	1	10	300	4	3	60	6	300	105							
Manicouagan.....	1	12	350	3	2	150	4	300	75							
Godbout.....					17	340	19	1500	1500					4	300	300
Pointe des Monts.....					5	100	5	750	750	1	300			1	100	90
Trinity Bay.....					12	240	12	1025	1025							
Caribou Islands.....	3	46	1800	6	28	560	29	1625	1625					1	60	40
Egg Island.....					10	425	19	300	250					1	40	30
English Point.....					37	740	55	2000	1900					1	45	45
Pentecost.....					15	300	21	360	200							
Cailles Rouges.....					7	150	14	210	175					1	45	50
Totals.....	5	68	2450	13	136	3065	184	8310	7605	1	300	3	60	9	590	555

MOISIE SUBDIVISION

Jambons.....	2	51	700	8	13	380	12	398	295					1	175	300
Ste. Marguerite.....					2	75	5	790	1200					1	40	20
Seven Islands.....	3	55	1700	10	24	945	40	1315	1243					4	180	185
Moisie.....	2	73	800	8	28	1475	56	5525	4800					5	250	550
Cormorant Point.....	1	19	400	3	2	25	2	75	50							
Pigou.....	1	14	300	2	4	200	8	150	130					1	25	40
Totals.....	9	212	3900	31	73	3100	123	8253	7718					12	670	1095

MINGAN SUBDIVISION

Little River.....					11	550	25							1	60	100
Chaloupe.....					9	400	19	350	160					1	40	80
Sheldrake.....					42	2495	84	400	200	2	700			1	50	90
Thunder River.....	1	61	1500	4	134	3500	300	300	150	4	1300			4	256	400
The Dock.....					27	1600	50							1	70	70
Ridge Point.....					23	1500	50							1	50	90
Jupitagan.....					3	150	6	300	200					1	30	50
Magpie.....					125	3400	280	300	200					3	200	400
St. John's.....					108	3200	160	1500	1500					2	180	350
Long Point.....					15	550	35	200	100					1	150	200
Mingan.....					2	140	4	200	200							
Romaine.....					1	40	1	60	50							
Esquimaux Point.....	17	682	15300	120	140	3000	210	1500	1000					17	1200	2500
La Corneille.....					2	100	2	200	150							
Totals.....	18	743	16800	124	642	20625	1226	5310	3910	6	2000			33	2286	4330

Fisheries Report.

Fisheries, Fishing Materials, and the Kinds and Quantities of Fish, as well as the
County of Saguenay, Province of Quebec, for the Year 1893.

(Manicouagan to Jambons).

KINDS OF FISH.										FISH PRODUCTS.				TOTAL VALUE.		
Salmon, salted, brls.	Salmon, fresh in ice, lbs.	Herring, salted, brls.	Herring, smoked, lbs.	Mackerel, salted, brls.	Cod, dried, cwt.	Cod, Tongues and Sounds, brls.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Clams, brls.	Fish Oils, galls.	Seal Skins.	Fish used as Bait, brls.			Fish used as Manure, brls.	$	cts.
.....	.....	15	1000	.....	.....	.....	.....	.....	10000	.....	255	85	.....	40	815	75
5	20540	207	.....	9	250	.....	750	1200	.....	.....	330	110	.....	10	492	00
.....	7502	60	.....	1	36	.....	.....	1000	.....	.....	1435	237	.....	60	7525	75
.....	17679	38	.....	.....	220	.....	300	3350	.....	.....	1406	274	.....	59	3039	80
.....	21920	69	.....	1	665	5	.....	4450	.....	.....	230	2	15	.....	5178	80
.....	.....	188	.....	.....	633	.....	300	1300	.....	.....	685	5	100	.....	8626	25
.....	8853	540	.....	.....	1436	15	.....	5950	.....	.....	633	.....	20	.....	4137	70
.....	.....	35	.....	.....	340	2	600	1800	.....	.....	1436	.....	130	50	12202	00
.....	.....	.....	.....	.....	242	.....	150	900	.....	.....	340	.....	15	.....	2106	00
.....	5228	30	.....	.....	.....	.....	.....	.....	.....	.....	293	17	15	5	2538	05
5	81722	1217	1000	11	3822	22	2100	19950	11200	.....	7043	730	414	105	46662	10

(Jambons to Pigou).

.....	.....	187	5000	.....	1658	4	.....	1600	.....	15	325	6	120	12	9001	00
.....	8613	.....	.....	.....	200	.....	400	.....	.....	.....	80	.....	30	.....	2739	60
.....	14594	37	.....	.....	1501	4	.....	7000	.....	30	1755	143	700	50	12685	55
.....	131403	12	.....	.....	3360	3	1600	9200	.....	20	2260	38	1000	60	45146	10
.....	.....	4	.....	.....	50	.....	.....	.....	.....	5	30	.....	20	.....	310	00
.....	.....	.....	.....	.....	165	.....	.....	800	.....	10	120	4	50	5	1003	00
.....	154610	240	5000	.....	6934	11	2000	18600	.....	80	4570	191	1920	127	70885	25

(Pigou to Watsheeshoo).

1	.....	.....	.....	.....	800	.....	.....	1500	.....	.....	500	.....	350	60	4521	00
2	.....	.....	.....	.....	240	.....	.....	800	.....	.....	160	.....	120	20	1446	00
4	.....	.....	.....	.....	7424	.....	.....	500	.....	.....	4550	.....	500	145	36164	50
3	.....	.....	.....	.....	5000	.....	.....	800	.....	.....	3670	.....	700	150	25221	00
.....	.....	.....	.....	.....	2500	.....	.....	2000	.....	.....	2000	.....	1700	100	14850	00
.....	.....	.....	.....	.....	2000	.....	.....	1500	.....	.....	1500	.....	650	80	10765	00
6	.....	.....	.....	.....	300	.....	.....	1100	.....	.....	200	.....	100	30	1801	00
44	.....	250	.....	.....	7600	.....	.....	180	.....	.....	5000	.....	3000	300	42697	00
.....	40000	.....	.....	.....	5000	.....	.....	800	.....	.....	3670	.....	2500	500	36048	00
19	.....	.....	.....	.....	1740	.....	.....	1500	.....	.....	875	40	900	150	10109	00
22	3200	.....	.....	.....	15	.....	200	.....	.....	.....	510	150	5	.....	1478	50
20	.....	.....	.....	.....	15	.....	600	.....	.....	.....	10	.....	5	.....	459	00
.....	.....	320	.....	.....	5000	.....	.....	2500	.....	.....	15690	4120	4000	.....	41616	00
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60	20	.....	.....	129	00
126	43200	570	.....	.....	37634	.....	800	13180	.....	.....	38395	4330	14530	1535	227305	00

RETURN showing the Number and Value of Vessels, Boats and Fishing

NATASHQUAN SUBDIVISION

DISTRICTS.	FISHING VESSELS AND BOATS.							FISHING			
	Vessels.				Boats.			Gill Nets.		Trap Nets.	
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.
			%			%			%		%
Watsheeshoo.....					2	30	3	100	50		
Nabissipi.....					1	20	2	200	70		
Agwanus.....	1	17	300	6	15	800	32	500	150		
Isle à Michon.....					9	360	18	100	50		
Natashquan Harbour.....					38	2,280	80	160	80		
Little Natashquan.....	3	70	900	18	22	1,200	50	1,300	480		
Natashquan River.....					10	180	20	2,200	760		
Kegashka.....					5	100	7	500	400		
Romaine.....					8	350	12	800	400		
Totals.....	4	87	1,200	24	110	5,320	224	5,860	2,440		

ST. AUGUSTINE SUBDIVISION

Wolf Bay.....					4	110	4	150	150		
Etamamiu River.....					1	10	2	200	300		
Point à Mourier.....					1	75	2	150	100		
Harrington.....					37	865	45	480	388	5	1,050
Little Meccatina.....					20	448	22	520	460	3	730
Whale Head.....					33	810	39	360	257	6	1,500
Mutton Bay.....					4	100	5	100	128	2	500
Big Meccatina.....					8	200	9	412	361	1	350
La Tabatière.....					5	300	2	250	250		
Big Meccatina Island.....					3	80	3	424	288		
Kikapoe.....					4	55	4	548	382		
Whale Head East.....					4	80	7	400	300		
St. Augustin.....					3	65	3	351	330		
Sandy Island.....					3	48	3	391	280		
Caucasippi.....					1	12	1	150	75		
Pointe à Giroux.....					1	40	2	180	175		
L'Anse à Portage.....					1	36	1	150	150		
Canso.....					4	100	7	117	100	1	300
Chicatica.....											
Totals.....					137	3,434	161	5,333	4,474	18	4,430

Fisheries Report.

Materials, &c., in the County of Saguenay, &c.—Continued.

(Watsheeshoo to Coacoashoo).

MATERIAL.			KINDS OF FISH.							FISH PRODUCTS.			TOTAL VALUE.	
Seines.		Value.	Salted, brls.	salted, brls.	Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Trout, lbs.	Halibut, lbs.	Clams, brls.	Fish Oils, galls.	Seal skins, No.	Fish used as bait brls.		
No.	Fathoms.												%	
			24		2,880		200						\$	cts.
2	50	60	34			940	300	700		800		150		403 20
1	30	25	16			800		600		650		110		404 00
4	130	75	1	25		2,600		1,200		2,000		450		5,419 00
3	90	60	41	250		1,600		1,000	12	7,230	887	260		4,341 00
			172	15		115	600	200		110		30		13,423 50
1	30	20	12	30		175	700			240		34		13,531 75
			34				800			150		50		3,506 00
														1,368 00
														746 50
11	330	240	334	320	2,880	6,230	2,600	3,700	12	11,180	971	1,030		43,142 95

(Coacoashoo to Chicatica).

			3			266				300	20	50		1,465 00
			24											384 00
			2							250	50			194 50
6	1,800	500	1			2,670		50		2,150	30	400		13,778 50
3	165	100	6			2,300				3,400	306	350		12,713 50
7	2,000	550	9			3,220				3,350	70	350		16,586 50
2	300	150	1			400				390	18	50		2,069 50
2	480	150	12			500				7,000	1,336	75		7,024 50
			5			75				800	150	10		940 00
			16			10				1,000	200			951 00
			18			20				15		5		391 50
			16			300				750	100	60		2,121 00
			4			150				130		30		836 00
			12											192 00
			4			75				50		15		444 00
			8			120				100		30		753 00
			3			20				15		5		151 50
1	75	30	4			350				300		65		1,856 50
21	4,820	1,480	148			10,476		50		20,000	2,280	1,495		62,852 50

RETURN showing the Number and Value of Vessels, Boats and
BONNE ESPÉRANCE SUBDIVISION

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.							
	Vessels.			Boats.			Gill Nets.		Trap Nets.		Seines.			
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Number.	Value.	Number.	Fathoms.	Value.
		£			£			£		£			£	
Bull Cove.....					6	180	6	520	260					
Bay of Rocks.....					12	300	20	300	150	2	400	1	100	50
Dog Islands.....					12	400	8	800	400					
Old Fort Islands.....					22	680	58	800	400	2	400	2	110	70
Burnt Island.....					20	1000	30	1500	750	2	400			
Bonne Espérance.....	1	40	600	4	80	4000	80	1500	750	4	800	8	2000	2460
Pidgeon Island.....					18	1000	24	300	150	2	500	2	700	750
Stick Point.....					8	400	8	600	300	1	200			
Salmon Bay.....					70	4000	80	300	150	3	600	6	820	940
Little Fishery.....					4	150	3	200	100					
Five League.....					6	200	8	600	300	1	100			
Middle Bay.....					30	1600	50	200	100	2	400	5	1200	870
Belles Amours.....					3	90	2	200	100					
Bradore Bay.....					30	1000	50	2000	1000	3	600	4	1000	800
Loug Point.....					20	800	40	2000	1000	2	400			
Greenly Island.....					50	4000	100	1000	500	1	300	11	2100	2550
Blanca Sablons.....					5	300	10	200	100					
Totals.....	1	40	600	4	396	20100	577	13020	6510	25	5100	39	8030	8490

THE ISLAND

Fox Bay.....					14	700	16	700	300			1	200	75
Salmon River.....					12	240	20	250	200					
Mauzerolle.....					10	300	18	200	150					
Capelin Bay.....					10	300	15	300	200					
Macdonald's Cove.....					20	600	40	500	300					
English Bay.....					18	360	20	500	300					
Strawberry Cove.....					20	300	25	350	200					
Shallop Creek.....					3	100	2	250	200					
Goose Point.....					10	150	20	100	100					
Cormorant Point.....					12	240	30	100	100					
Totals.....					129	3290	206	3250	2050			1	200	75

Fisheries Report.

Fishing Material, &c., in the County of Saguenay, &c.—Continued.

(Chicatica to Blancs Sablons).

KINDS OF FISH.								FISH PRODUCTS.					VALUE.	
Salmon, salted, barrels.	Herring, salted, barrels.	Lobsters, preserved in cans, lbs.	Cod, dried, cwt.	Trout, lbs.	Halibut, lbs.	Smelts, lbs.	Bas, lbs.	Fish Oils, galls.	Seal skins, No.	Fish used as bait, brls.	Fish used as manure, barrels.	Fish guano, tons.	\$	cts.
			100	800				100	40	12			638	00
			500	800				280	15	210			2,775	75
20			300	1400				800	160	40			2,390	00
			1000	1200				1150	90	150			5,417	50
			1700					1500	40	500			9,050	00
60			8000	3600				6000		1400			41,820	00
			1500					1300	30	260			7,697	50
			1000	800				850	30	30			5,002	50
			3500					2000		1200			18,350	00
18			100					260	40	15			914	50
			100					1060	160	15			1,096	50
			2000					1200		750			10,605	00
			50					60	10	10			276	50
			2500					3000	300	600			13,725	00
			2500					3400	350	500			13,797	50
			3000					4000	400	550			16,425	00
			300					1200	200	15			2,102	50
98			28150	8600				28160	1865	6257			152,083	75

OF ANTICOSTI.

2	50		210	500	350			195	15	50			1,458	75
7	25	45000		300				477	137	100			7,066	55
	110		515		1000			237		100			3,165	30
	135	12500	500		750			250		200			5,082	50
4	300		1500	350	2000			780	20	250			9,111	00
	100		430		1500			275	50	100	200		2,957	50
	100		475		1500			287	30	100	200		3,139	80
12				400				50	10				264	50
		50000								100			7,150	00
		75000								100			10,650	00
25	820	182500	3630	1550	7100			2571	262	1100	400		50,045	90

RETURN showing the Number and Value of Vessels, Boats and Fishing Material, &c., in the County of Saguenay and the Gulf Division, for the Year 1893.

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING MATERIAL.						KINDS OF FISH.								
	Vessels.		Boats.		Men.		Gill Nets.		Trap Nets.		Weirs.		Seinees.		Salmon.		Herring.				
	No.	Tonnage.	Value.	Men.	No.	Value.	Fathoms.	Value.	No.	Value.	No.	Value.	No.	Fathoms.	Value.	Fresh in ice, lbs.	Preserved in cans, lbs.	Salted, bris.	Fresh or frozen lbs.	Smoked, lbs.	
<i>Subdivisions.</i>																					
N. Godbout.	5	68	2450	13	136	3065	184	8310	7005	1	300	60	9	590	555	5	81722	1217	1000	1000	
St. Moisie.	9	212	3900	31	73	3100	123	8253	7718				12	670	1695		154610	240	5000	5000	
Mingan.	18	743	16800	124	642	20625	1226	5310	3910	6	2000		33	2286	4380	126	43200	570			
Natashquan.	4	87	1200	24	110	5320	224	5860	2440				11	330	240	334		320			
St. Augustin.			600	4	137	3434	161	5323	4474	18	4430		39	8020	1480	148					
Bonne Esperance.	1	40	600	4	386	20100	577	13020	6510	25	5100		21	8030	8490	98					
Anticosti.					129	3280	266	3250	2650				1	200	75	25					
Total.	37	1150	24950	196	1623	58934	2701	49336	34707	50	11830	3	60	126	16926	16265	736	279532	3167		6000
TOTAL FOR GULF DIVISION—PROVINCE OF QUEBEC.																					
Bonaventure County	2	35	500	6	1387	24328	2042	46882	26981	45	2250		231	5937	5001		138791	6421	8400	35400	
Gaspé	20	908	25100	185	2759	83387	4389	103556	56720	2	600		121	5414	7100	5	80257	16500	14421	82000	
Saguenay	37	1150	24950	196	1623	58934	2701	49336	34707	50	11830	3	60	126	16926	16265	736	279532	3167		6000
Total.	59	2093	50550	387	5769	166649	9132	199774	118408	97	14680	3	60	478	28277	28366	741	403580	24069	90400	41400

RECAPITULATION.

YIELD and Value of the Gulf Division, Province of Quebec, for the Year 1893.

Description.	Quantity.	Prices.		Value.	
		\$	cts.	\$	cts.
Salmon, salted.....	Brls.	741	16 00	11,856	00
do fresh in ice.....	Lbs.	493,580	0 20	98,716	00
do in cans.....	do	16,500	0 15	2,475	00
Herring, salted.....	Brls.	24,009	4 50	108,040	50
do fresh.....	Lbs.	90,400	0 01	904	00
do smoked.....	do	41,400	0 02	828	00
Mackerel, salted.....	Brls.	8,215	14 00	115,010	00
do fresh.....	Lbs.	7,100	0 12	852	00
Lobsters, canned.....	do	1,197,134	0 14	167,598	76
do fresh.....	Tons	2	40 00	80	00
Cod, salted.....	do	244,894	4 50	1,102,023	00
do tongues and sounds.....	Brls.	253	10 00	2,530	00
Hake, dried.....	Cwt.	150	3 00	450	00
Haddock, dried.....	do	2,922	3 50	10,227	00
Trout.....	Lbs.	24,270	0 10	2,427	00
Halibut.....	do	153,615	0 10	15,361	50
Smelt.....	do	231,524	0 05	11,576	20
Clams.....	Brls.	1,408	5 00	7,040	00
Eels.....	do	133	10 00	1,330	00
Tommy cods.....	Lbs.	73,163	0 05	3,658	15
Fish oils.....	Galls.	239,479	0 40	95,791	60
Seal skins.....	Pieces	21,038	1 25	26,297	50
Fish for bait.....	Brls.	74,472	1 50	111,708	00
Fish for manure.....	do	91,951	0 50	45,975	50
Total value for 1893.....				1,942,755	71
do do 1892.....				1,915,954	36
Increase for 1893.....				26,801	35

Fisheries Report.

STATEMENT showing Number of Men, with Quantity and Value of Material
Employed in Gulf Division Fisheries, Season of 1893.

Description.	Values.
	\$ cts.
59 vessels of 2,093 tons, manned by 387 men	50,550 00
5,769 boats fished by 9,132 men.	166,649 00
199,744 fathoms of gill net.	118,408 00
97 trap and smelt bag-nets	14,680 00
3 weirs	60 00
478 seines of 28,277 fathoms	28,366 00
62 lobster canneries employing 1,332 hands.	33,450 00
73,630 lobster traps, with trawl lines, &c.	40,640 00
104 freezers and ice-houses	8,060 00
805 smoke and fish-houses	163,060 00
162 piers and wharfs (private)....	18,180 00
802 trawls.....	7,170 00
Total value.....	649,273 00

STATISTICS OF FISHERIES IN THE PROVINCE OF QUEBEC,

RETURN of the Number and Value of Fishing Boats and Nets, Number of Men River St. Lawrence from Cape Chatte to

Number.	FISHING LOCALITIES.	FISHING BOATS.		Number of Fishermen.	KINDS OF NETS USED.				
		No.	Value.		Gill nets.			Eeel and Brush Fisheries.	
					No.	Fathoms.	Value.	No.	Value.
			¢				¢		¢
1	Capucins	14	210	25	9	180	135		
2	Mechins	40	600	76	49	1125	900		
3	Grosses Roches	11	165	22	13	260	195		
4	Ste. Félicité	36	540	61	32	650	495	6	120
5	Matane	9	135	18	14	360	305	12	240
6	Rivière Blanche	14	210	28	17	340	255	1	20
7	Sandy Bay			15	10	80	24	5	100
8	Metis			7				7	140
9	Ste. Flavie			8				8	160
10	Ste. Luce			17	1	75	15	16	320
11	Ste. Anne			11				11	220
12	Rimouski			10				10	200
13	Sacré-Cœur			10				10	200
14	Bic			10				10	200
15	St. Fabien			4				4	80
16	St. Simon			4	4	75	15		
17	Inland waters of Co. Rimouski								
18	do Témiscouata								
19	Notre Dame des Sept Douleurs	12	1700	40				20	2000
20	Isle aux Pommes	1	100	2				1	75
21	Trois Pistoles	2	200	10				6	550
22	Isle Verte	9	1100	28				17	1075
23	Cacouna			12				12	1000
24	River du Loup	1	150	8	3	60	120	7	550
25	St. André			23				38	1670
26	Kamouraska			4				11	707
27	St. Denis			11	11	1285	514	11	400
28	Rivière Ouelle			42	42	4020	1608	43	1940
29	Ste. Anne de la Pocatière			23	1	85	34	22	580
30	Inland waters, Co. L'Islet								
31	St. Roch			40				40	3150
32	St. Jean			50				50	3860
33	L'Islet			42				51	4080
34	Cap St. Ignace			16				16	1100
35	Ile aux Grues			24				24	2400
36	St. Thomas	1	12	21				21	1760
37	Berthier	4	40	20				21	2550
38	St. Valier	6	170	2				2	4000
39	St. Michel	5	55	5				5	2800
40	Beaumont	9	240	4				4	2700
41	Point Lévis	11	400	11				6	3050
Totals		185	6027	764	206	8595	4615	528	43997

* In the whole Matane district there was 1,364 brls. of codfish, valued at \$6,138, and 7,500 lbs. halibut, \$750; total, \$6,888.

Fisheries Report.

EXCLUSIVE OF THE GULF OF ST. LAWRENCE.

together with the Yield, Value and Kinds of Fish, &c., on the south shore of the Point Lévis, during the year 1893.

KINDS OF FISH.											VALUE.	Number.		
Salmon, lbs.	Trout, lbs.	Shad, lbs.	Herring, barrels.	Eels, lbs.	Sturgeon, lbs.	Sardines, barrels.	Whitefish, lbs.	Pickarel, lbs.	Coarse and small fish, brls.	Fish for manure, barrels.			\$	cts.
			100								*6,888	00	1	
8830			470								450	00	2	
			175								3,881	00	3	
375	200		550							50	787	50	4	
6570	3000		890			600				300	2,595	00	5	
			300								1,350	00	6	
375			160			60				100	1,025	00	7	
2625			280			1240					5,505	00	8	
150			150			40					837	50	9	
4500			500			800				100	5,600	00	10	
3675			90			400				50	2,365	00	11	
1015			100	800		315					1,646	00	12	
1500			100			200					1,350	00	13	
1600			100			250					1,520	00	14	
500			100	1400		100					934	00	15	
750											150	00	16	
200	12500										1,290	00	17	
	11500										1,150	00	18	
460		5500	355		200	260			200	25	3,424	00	19	
30			4							20	84	00	20	
300		50	60		200	50			300	60	1,425	00	21	
312		50	44	600	1250	20			100	40	754	40	22	
1980		1000	100	300	400	100				60	1,448	00	23	
900		120	200	150	400					50	1,275	20	24	
30			11	3750	860	74				5	695	10	25	
300		3500		1755	4600	148					20	1,109	30	26
4500		4300		9860	120	14					†1,798	40	27	
		2500		39700	200	34					15	4,957	50	28
		650		16425	25960						120	2,642	10	29
	7000										700	00	30	
				20225						125	125	1,651	00	31
				50300						135	135	3,490	50	32
				39005						128	128	2,788	30	33
				4800	8150		1800	1000			20	1,058	00	34
				87400							28	5,328	00	35
		800		15800	4400		7854	1000			37	2,049	32	36
290		3680		25430	2100		12200	1100			17	3,012	60	37
1630		8400		24000	3260		32400	2450			18	5,230	50	38
619		6750		20200	2800		5148	520			21	2,409	64	39
1110		14400		7600	3000		10700	1000			19	2,685	00	40
1120		6950		18400	1800		8000	1270			25	2,631	50	41
46246	34200	58650	4839	389900	59700	4705	78102	8340	1317	1355	99,540	36		

† In the amount of No. 28 the value of white whales (marsouins) are included.

RETURN of the Number and Value of Fishing Boats and Nets, Numbers of Men,
River St. Lawrence, from Quebec

Number.	NAME OF FISHING LOCALITIES.		FISHING BOATS.		Number of Fishermen.	KINDS OF NETS USED.				
			Number.	Fathoms.		Gill Nets.			Brush and Eel Fisheries.	
						Number.	Fathoms.	Value.	Number.	Value.
							\$		\$	
	<i>Island of Orleans.</i>									
1	St. Laurent		6	6	2100	1520				
2	St. Jean		9	6	920	635		3	400	
3	St. François (south side)		16					16	1292	
4	Argentenay		9					9	510	
5	St. François (north side)		6					6	200	
6	Ste. Famille		12	2	520	600		10	380	
7	St. Pierre		6	6	1320	1200				
8	Ste. Petronille		1	1	220	200				
	<i>North Coast.</i>									
9	Château Richer		4	1	250	200		3	62	
10	Ste. Anne		5					5	120	
11	St. Joachim		23					23	2156	
12	Isles Madame and aux Reaux		3					3	300	
13	St. Siméon		7	1	80	17		6	60	
14	Ste. Fidèle		8	1	70	15		7	70	
15	Malbaie		19	1	90	16		18	120	
16	Bay St. Paul and neighbouring lakes in County of Charlevoix		13					13	80	
17	Ile aux Coudres		30					50	250	
18	Les Eboulements		25					35	230	
19	St. Irénée		16					16	130	
	<i>Saguenay Division.</i>									
20	Inland waters									
21	St. Firmin	6	90	6				6	120	
22	Tadoussac	3	165	6	3	430	430	1	25	
23	Bergeronnes	3	60	3	3	350	350			
24	Bon Désir	1	20	2	1	50	50	1	20	
25	Escoumains	8	120	8	4	400	400	4	80	
26	Sault au Mouton	3	45	5				5	100	
27	Mille Vaches	8	75	8	1	60	60	7	140	
28	Portneuf	4	60	4	3	150	150	1	20	
29	Sault au Cauchon	1	20	1	1	100	100			
30	Islet Jérémie	3	60	3	3	150	150	1	20	
31	Bersimis	1	20	1	1	75	75	1	20	
32	Lake St. John Division†			150						
	Totals	41	735	165	45	7335	6168	250	6905	

† Estimated.

Fisheries Report.

together with the Yield, Value and Kinds of Fish, &c., on the north shore of the
to Bersimis, during the year 1893.

KINDS OF FISH.													VALUE.		Number.
Salmon, lbs.	Trout, lbs.	Shad, lbs.	Herring, brls.	Eels, lbs.	Sturgeon, lbs.	Sardines, brls.	Whitefish, lbs.	Pickeral, lbs.	Coarse and Small Fish, brls.	Fish for Manure, brls.	White Whales, No.	Oil, galls.	%	cts.	
1144		7000		25200			4560	1464					2,598	80	1
1016		5500		34800			6600	1740					3,236	20	2
				27100									1,626	00	3
				14700									882	00	4
				2800	400		2328	744	33				514	44	5
64		500		13400	3200		9360	2760	76				2,153	60	6
256		1150		24600	200		7920	2520					2,367	80	7
16		100		4000			600	180					306	20	8
16		80		4700	3000		5520	1620	38				1,106	60	9
				3300			960	360					292	80	10
				35000									2,100	00	11
				12000									720	00	12
150	600		2						2	10			110	00	13
100	300		1						2	4			62	50	14
150	700		4						4	100			180	00	15
	40000			13000									4,780	00	16
				8000					5				495	00	17
				2000									120	00	18
									10	1			30	50	19
	25000												2,500	00	20
1200			20			5				200	45	2250	1,525	00	21
15160	5000		10							250	15	750	4,062	00	22
11300	2000										55	2750	3,780	00	23
1500			5							50			347	50	24
13680			25			10				600	40	2000	4,138	50	25
1000			45			10				250			557	50	26
5000			80			25				500			1,685	00	27
10500	1000		5			2				40			2,248	50	28
2440													488	00	29
3200			3			1				15			664	00	30
3800			3			2				25			792	00	31
	10000						20000	50000	400				13,000	00	32
71692	84600	14330	203	224600	6800	55	57848	61388	470	2045	155	7750	59,470	44	

‡ Add 100,000 Winninsh, 20,000 pike.

RETURN of Fishing Stations, Number and Value of Fishing Boats and Nets, Number extending from Quebec to Upper

Number.	FISHING DIVISIONS.		FISHING BOATS.		Number of Fishermen.	KINDS OF NETS USED.						
			No.	Value.		Gill Nets.			Seines.		Eel Fisheries.	
						No.	Fathoms.	Value.	Fathoms.	Value.	No.	Value.
		%		%			%		%		%	
1	Sherbrooke and Megantic		100									
2	Magog and Brome		30									
3	Missisquoi Bay	12	144	36				1000	500			
4	Richelieu River	75	950	102				3500	600	8	17000	
5	Châteauguay	50	900	100				200	200			
6	Beauharnois	50	750	102	26	298	312	450	360			
7	Laprairie, including Montreal and vicinity	20	200	29	1	20	2	800	400			
8	Verchères County			164	1	30	20	620	550			
9	Richelieu County and St. Francis River	35	200	40				240	285			
10	Yamaska County and River	67	306	114				510	380	8	150	
11	Nicolet	38	200	47	7	114	11	520	300	38	65	
12	Three Rivers	5	30	10				240	50	3	10	
13	Berthier, Maskinongé and Montcalm	50	740	70	11	165	165	200	125			
14	Terrebonne	45	270	90	9	135	20	190	190	9	50	
15	Lake of Two Mountains and Isle Perrot	14	125	26	50	700	150			15	20	
16	River Beaudet			8	1	20	10	110	75			
17	Lower Ottawa	14	224	15	50	540	345					
18	Upper Ottawa	34	338	34	150	1500	800					
19	Gatineau Lakes											
	Totals	509	5371	1117	306	3522	1835	8580	4015	81	17295	

Fisheries Report.

of Men, together with the Yield, Value and Kinds of Fish, &c., within the District
Ottawa, during the Year 1893.

KINDS OF FISH.										TOTAL VALUE.	Number.
Trout, lbs.	Shad, lbs.	Eels, lbs.	Sturgeon, lbs.	Whitefish, lbs.	Maskinonge, lbs.	Bass, lbs.	Pickereel, lbs.	Pike, lbs.	Coarse and small fish, lbs.			% cts.
36400	10950	12700	8500	4600	20000	13500	43450	27400	31500	12,434 50	1
36000	500	1000				15500	5500	1000	94000	7,765 00	2
	6250						29440		35200	2,903 00	3
		43400	8800	500	500	500	2150	6000	152360	8,210 30	4
		13000	35000		2000	35000	20000	15000	100000	9,850 00	5
		37000	25900		3500	4800	9800	17200	110000	8,922 00	6
	200	10000	8000		6000	8000	7000	10000	35000	3,832 00	7
	700	14700	1600		200	870	3400	3500	14000	1,849 20	8
		10000	550		150	350	2500	750	15500	1,290 50	9
		4300	7750		4800	1745	6110	10600	185850	7,526 70	10
	10900	16000	5600	450	1000	1200	1400	1600	120000	*5,868 00	11
15000	830	800		900			700	1000	1000	3,284 80	12
50000	200	2400	1500	2000	500	750	2100	3350	177000	11,063 50	13
35000	100	1500	800		900	2300	4300	3900	2300	4,315 00	14
		2000	5200		5100	3000	8600	10200	30700	2,779 00	15
		30000	10000		700	800	500	700	30000	3,450 00	16
1000	6000	2400	20000	2200	2600	800	6500	14250	48000	4,661 50	17
		2230	2750	160	4550	4160	8800	14030	68250	4,023 20	18
90600				8600		11250	8500	45250		13,110 50	19
264000	36630	203430	141950	19410	52500	104525	170750	185730	1250660	117,138 70	

* 2,500 bushels of tom-cod valued at \$1,500 included in No. 11.

COMPARATIVE RECAPITULATION

Of the Quantity and Value of the different Fisheries from Cape Chatte to Point Lévis, in 1892 and 1893.

Kinds of Fish.	Prices for 1893.	1892.		1893.	
		Quantity.	Value.	Quantity.	Value.
	\$ cts.		\$ cts.		\$ cts.
Salmon..... Lbs.	0 20	32,774	6,554 80	46,246	9,249 20
Trout..... "	0 10	32,800	3,280 00	34,200	3,420 00
Shad..... "	0 06	78,854	4,731 24	58,650	3,519 00
Herring..... Brls.	4 50	12,332	55,494 00	4,839	21,775 50
Eels..... Lbs.	0 06	461,330	27,679 80	389,900	23,394 00
Sturgeon..... "	0 06	64,420	3,865 20	59,700	3,582 00
Sardines..... Brls.	3 00	4,150	12,450 00	4,705	14,115 06
Whitefish..... Lbs.	0 08	78,102	6,248 16	78,102	6,248 16
Pickrel..... "	0 05	8,340	417 00	8,340	417 00
Cod..... Brls.	.....	328	1,312 00	1,364	6,138 00
Halibut..... Lbs.	0 10	10,000	1,000 00	7,500	750 00
Coarse and mixed..... Brls.	3 00	8,642	25,926 00	1,317	3,951 00
Porpoise skins (marsouins)..... No.	4 00	120	480 00	96	384 00
do oils..... Galls.	0 40	12,000	4,800 00	4,800	1,920 00
Fish for manure..... Brls.	0 50	2,785	1,393 50	1,355	677 50
Total value of the fisheries.....			155,631 70		99,540 36
Decrease.....					56,091 34

COMPARATIVE RECAPITULATION

Of the Quantity and Value of the different Fisheries from Quebec to Bersimis, in 1892 and 1893.

Kinds of Fish.	Prices for 1893.	1892.		1893.	
		Quantity.	Value.	Quantity.	Value.
	\$ cts.		\$ cts.		\$ cts.
Salmon..... Lbs.	0 20	52,780	10,556 00	71,692	14,338 40
Trout..... "	0 10	84,700	8,470 00	84,600	8,460 00
Shad..... "	0 06	16,170	970 20	14,330	859 80
Herring..... Brls.	4 50	104	468 00	203	913 50
Eels..... Lbs.	0 06	149,050	8,943 00	224,600	13,476 00
Sturgeon..... "	0 06	6,600	396 00	6,800	408 00
Sardines..... Brls.	3 00	172	516 00	55	165 00
Whitefish..... Lbs.	0 08	49,300	3,944 00	57,848	4,627 84
Pickrel..... "	0 05	53,360	2,668 00	61,388	3,069 40
Pike.....		20,000	1,000 00	20,000	1,000 00
Winninich.....		100,000	6,000 00	100,000	6,000 00
Coarse and mixed fish..... Brls.	3 00	551	1,653 00	470	1,410 00
Porpoise skins (marsouins)..... No.	4 00	142	568 00	155	620 00
do oils..... Galls.	0 40	7,100	2,840 00	7,750	3,100 00
Fish for manure..... Brls.	0 50	2,211	1,105 50	2,045	1,022 50
Total value of the fisheries.....			50,097 70		59,470 44
Increase.....					9,372 74

Fisheries Report.

COMPARATIVE RECAPITULATION

Of the Quantity and Value of the different Fisheries, from Quebec to Upper
Ottawa, in 1892 and 1893.

Kinds of Fish.	Prices.	1892.		1893.	
		Quantity.	Value.	Quantity.	Value.
	\$ cts.		\$ cts.		\$ cts.
Trout.....	Lbs. 0 10	277,950	27,795 00	264,000	26,400 00
Shad.....	" 0 06	24,350	1,461 00	36,630	2,197 80
Eels.....	" 0 06	204,925	12,295 50	203,430	12,205 80
Sturgeon .	" 0 06	142,320	8,539 20	141,950	8,517 00
Whitefish.	" 0 08	15,860	1,268 80	19,410	1,552 80
Maskinonge	" 0 06	52,450	3,147 00	52,500	3,150 00
Bass.....	" 0 06	97,130	5,827 80	104,525	6,271 50
Pickarel .	" 0 05	139,475	6,973 75	170,750	8,537 50
Pike.....	" 0 05	193,645	9,682 25	185,730	9,286 50
Coarse and small fish.....	" 0 03	1,018,600	30,558 00	1,250,660	37,519 80
Tom-cods	Bush. 0 60	15,000	7,500 00	2,500	1,500 00
Total value of the fisheries.....			115,048 30		117,138 70
Increase.....					2,090 40

RECAPITULATION.

YIELD and Value of the Fisheries of the Province of Quebec (*exclusive of the
Gulf Division*) for 1893.

Kinds of Fish.	Quantity.	Value.
		\$ cts.
Salmon.....	Lbs. 117,938	23,587 60
Trout.....	" 382,800	38,280 00
Shad.....	" 109,610	6,576 60
Herring	Brls. 5,042	22,689 00
Eels.....	Lbs. 817,930	49,075 80
Sturgeon .	" 208,450	12,507 00
Sardines	Brls. 4,760	14,280 00
Whitefish.	Lbs. 155,360	12,428 80
Maskinonge	" 52,500	3,150 00
Bass.....	" 104,525	6,271 50
Pickarel .	" 240,478	12,023 90
Pike.....	" 205,730	10,286 50
Winninich ..	" 100,000	6,000 00
Cod.....	Brls. 1,364	6,138 00
Halibut	Lbs. 7,500	750 00
Tom-cod.....	Bush. 2,500	1,500 00
Coarse and mixed fish.....	Lbs. 1,608,060	42,880 80
Porpoise skins	No. 251	1,004 00
do oil.....	Gall. 12,550	5,020 00
Fish for manure.....	Brls. 3,400	1,700 00
Total in 1893.....		276,149 50
do 1892.....		320,777 70
Decrease.....		44,628 20

RECAPITULATION.

YIELD and Value of Fisheries in the whole Province of Quebec, for 1893.

Kinds of Fish.	Quantity.	Value.	
		\$	cts.
Salmon, salted.....	Brls. 741	11,856	00
do fresh.....	Lbs. 611,518	122,303	60
do in cans.....	" 16,500	2,475	00
Herring, salted.....	Brls. 29,051	130,729	50
do fresh.....	Lbs. 90,400	904	00
do smoked.....	" 41,400	828	00
Mackerel, salted.....	Brls. 8,215	115,010	00
do fresh.....	Lbs. 7,100	852	00
Lobsters, canned.....	" 1,197,134	167,598	76
do fresh.....	Ton.. 2	80	00
Cod, salted.....	Cwt. 244,894	1,102,023	00
do fresh.....	Brls. 1,364	6,138	00
do tongues and sounds.....	" 253	2,530	00
Hake, salted.....	Cwt. 150	450	00
Haddock, salted.....	" 2,922	10,227	00
Trout.....	Lbs. 407,070	40,707	00
Shad.....	" 109,610	6,576	60
Halibut.....	" 161,115	16,111	50
Smelts.....	" 231,514	11,576	20
Clams.....	Brls. 1,408	7,040	00
Eels.....	Lbs. 844,530	50,405	80
Sturgeon.....	" 208,450	12,507	00
Sardines.....	Brls. 4,760	14,280	00
Whitefish.....	Lbs. 155,360	12,428	80
Maskinongé.....	" 52,500	3,150	00
Baas.....	" 104,525	6,271	50
Pickeral.....	" 240,478	12,023	90
Pike.....	" 205,730	10,286	50
Winninish.....	" 100,000	6,000	00
Tom cods or frost fish.....	" 173,163	5,158	15
Coarse and mixed fish.....	" 1,608,060	42,880	80
Seal skins.....	No. 21,038	26,297	50
Porpoise skins.....	" 251	1,004	00
Fish oil.....	Galls. 252,029	100,811	60
do for bait.....	Brls. 74,472	111,708	00
do for manure.....	" 95,351	47,675	50
Total for 1893.....		2,218,905	21
do 1892.....		2,236,732	06
Decrease.....		17,826	85

Fisheries Report.

STATEMENT

OF the Number and Value of Boats, Nets and other Fishing Material used in the
Inland Waters of **Quebec** (exclusive of the Gulf Division).

Articles.	Value.
	\$ cts.
735 fishing boats	12,133 00
19,452 fathoms of gill-nets.....	12,618 00
8,580 fathoms of seines.....	4,015 00
859 brush of eel weirs	68,197 00
Total.....	96,963 00

NOTE--The number of fishermen is given at 2,046, but most of them only fish during a short period of the year.

STATEMENT

OF the Vessels and Boats and other Fishing Material employed in the **whole**
Province of Quebec, for 1893.

Articles.	Value.	Total.
	\$ cts.	\$ cts.
59 vessels of 2,093 tons	50,550 00	
6,504 fishing boats.....	178,782 00	
219,226 fathoms of nets.....	131,026 00	
36,857 fathoms of seines.....	32,381 00	
862 weirs.....	68,257 00	
97 trap and small bag-nets	14,680 00	
62 lobster canneries.....	33,450 00	475,676 00
73,630 lobster traps with lines, &c.....	40,640 00	
		74,090 00
802 traws.....	7,170 00	
104 freezers and ice houses.....	8,060 00	
805 smoke and fish houses.....	163,060 00	
162 piers and wharfs (private).....	18,180 00	
		196,470 00
Total.....		746,236 00

APPENDIX No. 9.

MANITOBA.

ANNUAL REPORT FOR THE YEAR 1893, ON THE FISHERIES OF
MANITOBA, BY INSPECTOR R. LATOUCHE TUPPER.

SELKIRK, MAN., 31st December, 1893.

Hon. Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit my first annual report on the fisheries of Manitoba, and with it the statistics of the catch for the year past, the value of boats, nets, &c., and remarks on the general state of the industry in the province.

The fishing industry is fast assuming large proportions, and as communication becomes easier with different waters and transportation becomes cheaper, the fishing will increase with rapid strides, and new fishing grounds will be brought into use.

Lake Winnipeg, though, will always remain the great source of supply for the far-famed Manitoba whitefish, and the utmost care must be exercised to prevent its depletion, and by artificial production maintain its productiveness and consequent source of revenue and employment to the people. The wise precautions taken by the department in closing the mouths of rivers up which the whitefish go to spawn, and the confining the commercial fishermen to waters away from any shore spawning beds is having a very beneficial effect on the supply and will largely provide for the heavy draught now yearly being made on the lake. The planting of fry from the hatchery now in operation at Selkirk cannot but have a marked effect also in a few years, and the utmost satisfaction is expressed by the public and by the fishermen at its erection.

Only going back three years, I find that in 1889 there were engaged in commercial fishing:

1889.	1893.
Men, 63	Men, 136.
Steam vessels, 3.....	Steam vessels, 13.
Sail boats, 25.....	Sail boats, 30.
Gill-nets, 32,000 fathoms.....	Gill-nets, 67,350 fathoms.
Value, \$47,900.00	Value, \$109,800.00
The catch in the year, 1889, was by the commercial fishermen.....	1,924,224 lbs.
In 1893.....	3,873,281 lbs.

The change of the close season from the 15th December to the first day of the same month is a great boon to the small fishermen who ply their vocation principally in winter, fishing through the ice. There is no doubt that whitefish have spawned by the end of November, and the ice gets too thick by the middle of December as a

Fisheries Report.

rule for the fishermen to cut holes for their nets and especially where they have to move, often to locate or follow the fish. I would respectfully recommend that the 15 days taken off December be added to the commencement of the close season, and that it commence the 20th or 25th at the latest of September. This to apply not only to Lake Winnipeg, but also to the other lakes of the Lake Winnipeg basin, such as Lakes Manitoba, Winnipegosis, Dauphin, &c. While on the subject of close seasons, I would earnestly draw your attention to the reports of officers Develin, of Lake Manitoba, and Thompson, of Lake Winnipeg, regarding the spring close season for the spring spawning of fishes.

The ice does not leave the lakes until the end of May or beginning of June, though the streams up which the fish run are open earlier. Many fish do not enter the streams to spawn, preferring the gravelly or coarse sand shore of the lakes, especially the larger spring spawners of the most valuable kinds. I do not think one pickerel out of ten enter rivers to spawn. Suckers and pike frequent the rivers almost entirely, yet many a pair of large pike will be found in the bays of the lake, especially where there are rush beds. I think the guardians' recommendations are correct, and I am glad to see they are urged to make the report by the fishermen themselves. Some fishermen in Mr. Martineau's district seem to want no close season for pike. I cannot agree with them. The statistics of the province shows that they are a valuable fish and of good commercial value. True, I would rather see trout, black bass or some other fish in their stead, but this is impossible in the waters they frequent, and in nine cases out of ten in these waters it means pike or no fish. Again, if fishing for pike was allowed in spring the pickerel would be caught in great quantities also, as in many places they will be found together, and Manitoba pickerel is nearly as valuable a fish as the whitefish.

The fishing has in the past been done principally in the winter on Lake Manitoba, but now that a freezer has been built there there will be an inducement for summer fishing, as the fish can then be frozen and held for market—consequently if the close season remains as it is, in spring a great destruction of spawning fish may be looked for.

The fact that the crews of the fishing companies operating in the north end of Lake Winnipeg cannot go out to the fishing grounds until after the 1st of June prevents any destructive spring netting there, but in the southern part of the lake, as Guardian Thompson points out, the destruction is very great.

All fishing in Manitoba lakes is by gill-nets. No pound or trap-nets being used and only three seine licenses having been taken out the past year. These nets I will advert to further on.

Guardian Thompson of Gimli, who is a new officer, having taken the place of the late Guardian Wood, of Bad Throat River, who died last year, says:—

“I find that my predecessor has valued the fishing boats at too low a figure. This I have corrected, though I doubt if even my valuation is high enough; this will account for the difference in valuation of last year. On accompanying returns you will also doubtless find that I present a greater number of fish caught than my predecessor did in his last report. This is to be accounted for by the fact that fishing has been very good this season all along the settlement, and not because of any extra effort. The close season for pickerel should be changed, if depletion of this valuable fish is to be guarded against. I say it without hesitation and base in on the almost unanimous assertion of the fishermen, many of whom are keen observers. Pickerel do not commence to run to the shoals and deposit eggs until about the 20th of May and continue there until about the 20th of June. This is the time the fish require protection, but as it is this is the time it is caught in greatest numbers. As regards whitefish, I may say that fishermen assert they never deposit eggs after the 20th November, hence I believe ample protection would be given though the close season were shortened by fifteen days. It would not merely be more satisfactory, but would be a source of considerable gain to the settlers were they allowed to catch whitefish after December 1st.”

(NOTE.—This officer had not heard when he wrote that the season had been changed as he recommended.)

In this district there were caught:—

	Value.
Whitefish.....	\$ 2,718 40
Pickarel.....	3,656 25
Pike.....	643 50
Tulibee.....	2,492 25
Catfish.....	152 25
Mixed fish.....	820 12½

And of this there was shipped out of this district for export:—

	Lbs.
Whitefish.....	55,000
Pickarel.....	90,000
Tulibee.....	80,000

Guardian Johnston of Fisher River does not send a full or long report from his district. He writes:—"Your recent appointment to the position of Inspector will, I presume, exempt you from sending an annual report to the department." By good fortune I was able to get a letter out to him in time to get the necessary statistics from him. I am sorry to say this officer has—although he has pluckily made the necessary inspection of his district, lost the use of one arm almost entirely the past season, and I am afraid the department will lose a good officer on the lake.

Both he and the guardian at Gimli are silent regarding the observance of the fishery laws in their districts, but after Mr. Johnston's first inspection he reported the law as well observed. Mr. Johnston reports the catch in his district as follows:—

	Lbs.	Value.
Whitefish.....	210,600	\$6,318 00
Pickarel.....	93,850	1,877 00
Sturgeon.....	37,200	1,116 00
Pike.....	9,300	93 00
Mixed fish.....	163,400	1,634 00

Of the above there was sold to the trade:—

	Lbs.
Whitefish.....	85,000
Pickarel.....	91,000

the balance being for home consumption. This of course does not include the fishing or any part of the fishing of the commercial companies fishing in Mr. Johnston's district, which I have kept separate.

Mr. Adams, the overseer at Waterhen River, writes as follows: "I have the honour to transmit herewith my annual report as fishery overseer of the district comprising Waterhen River, the southern portion of Lake Winnipegosis, and Lake Dauphin."

"This is an out-of-the-way place and I don't know yet who is inspector of Manitoba, as I did not get any mail since over three months." As his letter was posted on the 11th of December and got to me a month later, if a report is not full enough or if any directions are to be sent to an officer in this sparsely populated portion of Canada, how prompt a reply may be expected can be seen by this.

Continuing—Mr. Adams says—"Owing to the severe weather and deep snow of last winter, I have to report a considerable decrease in the fishing operations of this district as they are carried on in the winter chiefly for trade. The close season was found well observed at the different stations visited, but fishermen complain of its being too long, and say whitefish don't spawn after the 1st of December."

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Guardian Adams reports the catch as follows:—

	Lbs.	Value.
Whitefish.....	50,000	\$1,000 00
Pickereel.....	5,000	75 00
Pike	8,000	40 00

For home consumption there was used:—

	Lbs.	Value.
Whitefish.....	190,000	\$3,800 00
Pickereel.....	20,000	300 00
Pike.....	60,000	300 00
Mixed Fish.....	250,000	2,500 00

There are a great many Indians in this district whose great source of food winter and summer is fish, and of course the poorer the Indian the more dogs he has to feed.

Mr. Develin, the guardian at St. Laurent, in Lake Manitoba, says: "I visited during my tour of inspection Oak Point, Marshy Point, Swan Creek, Rabbit Point, Rocky Island Point and Long Point. To the South, Lake Francis, Rocky Island, Claudeboye Bay, Two Creeks, and Totogan, and found the fishery laws well respected, only in one instance I confiscated one whitefish net that was wet and drying on the beach at Swan Creek. I also found that the fishery regulations were well respected by those who were fishing for the freezer and also by Mr. Bradstock who is agent for Blackwood Bros.

"During my inspection, complaint was made by practical fishermen that the close season for pickerel and pike was wrong, as the time the close season is opened is exactly the time the pickerel and pike make their way into the creeks to spawn, and in their opinion the close season for pickerel and pike should be extended until the 1st of June."

It will thus be seen that Mr. Develin, who is himself a good officer and a close observer, reports exactly the same opinion as the guardian from Gimli on Lake Winnipeg.

Mr. Develin also reports the catch for the season as satisfactory, though he fears that if the close season for spring spawners is not changed, a large amount of early fishing may spring up, as the new freezer will make a market for the fish, which was not there before. Summer fishing heretofore has not been carried on to any great extent, as the fish could not be marketed. Mr. Develin also says in a former letter, I would suggest to you strongly that no license be issued to non-residents to fish in the lake, as it is not large enough, and the laws would be violated in every respect by men brought to fish in the district. The resident fishermen now see after a few years of hard schooling that the Government are working for their benefit.

The reason, I believe, for this request to keep out non-resident fishermen is a report that Blackwood & Co. were going to bring in fishermen to fill their freezer.

I drew the attention of Mr. Develin to clause 6 of the fishery regulations, and told him to inform the fishermen that as long as that clause stood their fears were groundless.

The catch in this district was:

	Lbs.	Value.
Whitefish	36,200	\$1,448 00
Pickereel	78,000	2,730 00
Pike	167,000	2,505 00
Tulibee.....	11,000	137 00

And there was used for home consumption:

Mixed fish	48,000	7,780 50
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Mr. Martineau, guardian at the Narrows of Lake Manitoba, reports as follows: "I have visited the fishing grounds under my supervision several times during the year 1893, and found them correct," and again he says: "I am glad to report that

the close seasons were strictly maintained, and every fisherman, and even the Indians did not violate the fishing regulations. "It is unfortunate that I had so many complaints against parties illegally fishing in his district, that I sent Mr. Sutherland to investigate these reports, and it was equally unfortunate that Mr. Sutherland was unfortunate enough to find none of the parties at home I told him to call on, so no investigation was held; but a fish dealer told me he had bought some thousands of whitefish caught by a neighbour of the guardian in the close season, and the fish were now safe in Buffalo. It may be that this breach of the law was committed when Mr. Martineau was absent in the east, where I believe he was for some time on leave.

Mr. Martineau says: "Fishing operations are chiefly carried on in winter, as summer fishing requires more outlay than the fishermen are generally prepared to make. The inhabitants fish for a living solely during the balance of the year. There is a general complaint by all fishermen that the close season for whitefish is too long, and they all agree that the close season, especially for them, should be, say from the 1st of October to the 15th or 20th of November, and also request that there be no close season for pike, as it is known that pike kill more whitefish than the fishermen do, and eat and destroy great quantities of spawn. Nevertheless," says Mr. Martineau, "fish of all kinds are reported as plentiful as ever all over the Lakes Manitoba, Ebb and Flow, and Dog Creek."

I should think if the fishermen in this district gave the subject a moment's thought they would know that owing to the construction of the pike's jaws he would starve to death if he tried to live on what eggs he could pick off the bottom of the lake, bad a character as he is this sin must not be laid at his door. Of course they eat large numbers of young whitefish before they get to the deep and cold water where the pike does not follow them very much, but all fishes are in the two classes—the chased and the chasers. The pickerel is as destructive almost as the pike and both are valuable fish. The pike is a useful fish in our waters, the great majority of fishermen would not like to see it exterminated, and many a Manitoban would go fish hungry if it was; besides, if open fishing was allowed for pike in the spring, just as many pickerel would be taken in a great many places.

As in other districts, only the gill-net was used. The catch was:—

		Value.
Whitefish, salted, 6½ brls.....	\$	45 50
	Lbs.	
Whitefish.....	173,600	5,208 00
Pickerel.....	65,350	1,301 00
Pike.....	210,860	1,054 30
Tulibee.....	35,600	890 00
For home consumption:—		
Mixed fish.....	133,540	4,006 20

Most of the winter caught fish are sold to traders who go out sometimes over 100 miles buying from the settlers and Indians. These traders again sell to dealers in Selkirk, sometimes in Winnipeg, Portage la Prairie, Reaburn, &c. In purchasing from Indians some unprincipled pedlars take out trashy goods and get the fish for a song, in any case where there are two or three middlemen between the fisherman and the consumer, the former has the small end of the fish. Some of these traders are honest, reliable men, and have traded and purchased fish on the lakes for years. These men, I find, help the fishermen in getting their licenses and in most cases refuse to purchase only from a licensed person, be he Indian or white man. There are some unprincipled pedlars, principally coming from Winnipeg, who buy from unlicensed as well as the licensed. In order to prevent this and for the better collection of statistics, I would respectfully suggest that all traders in fish be licensed and registered, if possible. This I am certain will meet the approval of all respectable traders and indeed be a protection to them.

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There were three seine licenses granted, all in the vicinity of Winnipeg. I caused the seizure of five nets on these seining grounds which will form the subject of a separate report.

The fish caught in these nets, as will be seen, are principally of the coarser kinds, such as catfish, sheepheads, suckers and gold eyes, and they are decreasing in number, at least the better kinds as the river gets fouler by sewage. Catfish seem to thrive on the river better each year, and opposite the sewers in Winnipeg is their favourite place. These seiners sell their catch for local consumption and at a cheap rate, keeping the live fish in pens until needed and they give a cheap food supply to many poor people. I think a 3-inch mesh should be allowed these fishermen, otherwise they cannot make wages.

While I would be the last one to advocate the lessening of the mesh so as to catch immature fish in any quantity, I think for these gold eye and sucker fishermen—for those and catfish are the principal catch—and in view of the people to whom these fish are really a boon, the mesh of the seines could be reduced to 3 inches.

In conclusion, I would beg to say that the short time I have been Inspector, and the heaviest and most anxious time of the year in the hatchery where all the conditions are new and require careful and constant work night and day coming together, has prevented me making as full a report as I would wish to make. But no Inspector can make a, to himself at least, satisfactory report until he has visited every district in his province. I have, of course, been unable to do this the past year.

I beg herewith to append a statement of the number and value of vessels, boats and fishing materials, the number of men employed, &c., with the kinds and quantities of fish caught in Manitoba in the year 1893.

All of which is respectfully submitted.

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

R. LATOUCHE TUPPER,
Inspector.

Fisheries Report.

APPENDIX No. 10.

NORTH-WEST TERRITORIES.

ANNUAL REPORT FOR THE YEAR 1893, ON THE FISHERIES OF THE NORTH-WEST TERRITORIES, BY INSPECTOR F. C. GILCHRIST.

FORT QU'APPELLE, ASSA., 31st December, 1893.

Hon. Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa,

SIR,—I have the honour to submit synopses of the annual reports for the past year of the overseers and guardians in my district. Up to the present I have received no reports from the more remote regions. In fact, throughout the vast country to the north of the North Saskatchewan River, from Cedar Lake on the east side to the Rockies on the west, a distance of 600 miles in length, a trackless wilderness, except for the trails leading from one lonely settlement to another, which is interspersed with hundreds of lakes that are stocked with valuable food fishes, the regulations were introduced and enforced for the first time this year. The population is native, either half-breed or Indian, and lives very largely, and in the majority of cases, almost wholly on fish throughout the year. Evidence gathered from the natives, missionaries, Hudson Bay Company and Indian Department officials, goes to prove that in every instance the waters, from which the natives have been in the habit of drawing their winter's supplies of fish in the fall, were rapidly failing in their fisheries; and in many cases the latter were things of the past, so far as the whitefish fisheries were concerned. All this was acknowledged; nevertheless, when your department sought to enforce tentatively the regulations, opposition, more or less strenuous, was met with all along the line, and it is within a very short time that some of those interested in the welfare of the people of the north have admitted that action of a protective nature was needed, if the food supply of the natives was to be preserved to them and their children.

That some hardships will have to be endured by the natives, if the regulations are enforced is true; but it is also true that if they are allowed to go on as they are doing whole settlements will be starved out, and be compelled to vacate their present locations, and go farther north or south, and in any case they will be thrown on the Government for support. The present custom of putting up their winter's supplies of fish in the breeding season, while it impoverishes the waters of their wealth, at the same time does not prevent what certain people say the enforcement of the regulations will result in, viz., hardships and suffering. Under the present system the natives put up in a short time in the fall what they consider ample supplies of fish; but unfortunately, they are as improvident as they are lazy, and in the course of a few weeks, what was considered plenty of fish to last till spring has entirely disappeared, and they have to fall back on the missionaries, Indian Department, or any one that will give to them food with which to keep themselves and their families alive. For they have no nets in the water at this time of the year, and the ice is so thick that the labour of putting in nets is very great, and they will not attempt it. Besides being indifferent fishermen, it is doubtful whether they would be able to catch enough fish at that time of the year with which to keep themselves alive. So badly pushed are they that they often resort to rifles in small streams at the approach of spring, for the purpose of catching suckers for food, as they run up stream preparatory to spawning. Towards the end of February and in March, they frequently suffer terribly from starvation, because of the improvident way in which they have managed the fish they put up the previous fall. Were they accustomed to growing a quantity of potatoes, to putting up a supply of smoked or dried fish in

the late summer to do them over the close season, and to putting in their nets under the ice after the close season, and fishing all winter, or until the weather became too cold and the fish inactive and hard to take, when they might take out the nets but not the lines; and towards the end of February and in March when the weather moderated, and the fish began to "move" they could attach the nets to the lines, and run them under the ice again and catch plenty of fish—for large hauls of whitefish are usually made in March and April—the annual starving would not take place, the fisheries would not become depleted, and the natives would not be in their present state of lazy, improvident helplessness. Unfortunately, these poor people have got into a bad way of doing things, and your officers have a heavy contract on hand to so enforce the regulations to preserve the fisheries, and teach the people to help themselves. The returns are incomplete for the reason that in Assiniboia, outside of the few lakes, and in Southern Alberta, the fishing is confined to streams and is done by hook and line; and as yet no attempt has been made to collect the statistics there. In northern Alberta and Saskatchewan the fisheries service is little more than introduced, the country is vast, the roads execrable, and the people widely scattered, ignorant, and averse to giving information regarding the fisheries. The fact that the people communicate with each other almost solely in Cree makes it more difficult for your officers to find out much pertaining to fisheries statistics. It is only by taking the number of the population of human beings and train dogs, and bearing in mind the fall catch where it is possible to get it, estimating from the proportion of fish in the daily food ration, which varies somewhat in the different settlements that we are enabled to get at an approximate estimate of the amount of fish caught and consumed. But this mode of estimating the catch does not enable us to get at the number of boats and the amount of netting used; nor does it enable us to subdivide the totals into the different varieties of fish. Still, with the great advance made in the enforcement of the regulations in the north during the past season, I expect to be able to show to you, at the close of 1894, as great an improvement in the collection of reliable fisheries statistics.

The report would have been more complete had I been in a position to await the arrival of several reports that have not yet come to hand; but instructions from the department to forward report at once has prevented my doing so.

Following this in a few days will be a report of observations on the spawning of whitefish on Long Lake, Assa., which as I have not yet finished the examination of a number of fish that arrived a few days since, I have found it impossible to complete in time to go forward with this report.

SYNOPSIS OF OVERSEERS' AND GUARDIANS' REPORTS.

Acting Overseer R. S. Cook, who resides at Prince Albert, reports that the fishery regulations on the whole have been well observed, and the numerous lakes of the Prince Albert District have had a rest such as they have not known before.

The regulations met with, and are still meeting with a great deal of opposition. The majority of the Indians with whom he has come in contact, admit that the regulations are wise and good, and that the fish are rapidly declining under the old system of fall fishing; but it has been represented to these poor uneducated people, by traders and unprincipled half-breeds, who make a living chiefly by trading with the Indians, that the regulations are infringing on the treaty rights of the Indians; and he would suggest that the Indian Department be asked to have this wrong impression removed. He and the two guardians under him have endeavoured to show the Indians and half-breeds who live chiefly on fish, that the regulations are not intended as a hardship, and that the sole object the Government has in enforcing these laws is the future welfare of the poor people; and the concessions made by the department this year have done more towards convincing them that such is the case than anything else that could have been done.

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Overseer Cook has also been careful to impress upon them the necessity for making provision for the period covered by the close season next year. The fishery question is one of vital importance to the large native population of the north, and great care will always have to be exercised in the enforcement of the regulations, else dire results may follow.

Fishing in the north and south Saskatchewan Rivers was much better than last year. The estimated catch was as follows, viz.:

	Lbs.
North Branch—	
Gold-eyes 2,000.....	500
Pike and pickerel, 400.....	1,600
Sturgeon, 850.....	17,000
South Branch, including Main River east to La Corne—	
Pike and pickerel, 700.....	2,800
Gold-eyes, 5,000.....	1,250
Sturgeon, 2,300.....	46,000
Fishing lakes south of Saskatchewan—	
Pike and pickerel, 3,500	10,000
Suckers, 1,500.....	1,500
Lakes north of North Saskatchewan—	
Whitefish, 164,000	492,000
Pike and pickerel, 20,000	70,000
Suckers, 10,000.....	10,000
Total weight of fish.....	<u>652,650</u>

The catch at Stanley Mission, Isle La Crosse, and Cumberland Districts is not included in the above.

Forty-five free permits have been issued to destitute half-breeds; 10 free licenses to Indian bands; 14 domestic licenses; and 12 applications are now before the department. Total revenue, \$52.

BATTLEFORD DISTRICT.

Special Guardian C. A. Smith, who lives at Jackfish Lakes, was put in charge of Turtle and Jackfish Lakes the beginning of October last, and reports that Turtle Lake lies over 70 miles north-west of Battleford, and is over 20 miles long, and in some parts over six miles wide. Turtle Creek drains the lake into the Saskatchewan. The Turtle Lake whitefish are the largest in the district, and the finest in quality. The lake is also well stocked with pike and suckers, but no tullibee or lake trout. Jackfish Lake, about 20 miles north of Battleford, is nine miles long, and in one place six miles wide. It contains the same kinds of fish as Turtle Lake, and tullibee in addition. The whitefish are not so large, nor so good as the Turtle Lake whitefish.

Long Lake lies east of Jackfish Lake, and contains the same kinds of fish, but has no tullibee. It is three miles long and three-fourths of a mile wide. This officer believes that the fish are being exterminated. There was a considerable decrease in the catch this year, which was largely owing to the presence of a fishery officer; but still the fisheries are not what they used to be. Five domestic licenses were taken out in this district; and one person was convicted of illegal fishing. The returns are:

	Lbs.	Value.
Whitefish.....	80,000	\$4,400

LAC LA BICHE DISTRICT.

The Indians and half-breeds in this district, viz., at Lac La Biche, Beaver, Whitefish, Goodfish, Saddle, and other lakes, fished as usual during the close season; but as I have received no reports from the officers there, I am unable to give the returns of the catch, but believe it to be somewhat less than last year.

EDMONTON DISTRICT.

Special Guardian George Purches, sergeant North-west Mounted Police at St. Albert, and *Special Guardian W. Smith*, constable North-west Mounted Police at Lac Ste. Anne, have been looking after the fisheries of this district. The Indians at White Whale Lake were allowed to fish during the close season with a limited amount of net to each family for their own use. *Guardian Smith* reports the regulations as having been faithfully observed at Lac Ste. Anne. He also reports that having been given to understand that no whitefish could be taken in the winter at Lac Ste. Anne, he watched two nets operated under the ice after the 15th December, and found the catch to vary from 29 to as low as 10 fish (the nets being examined each alternate day), and up to the present (the 28th December) fish are being taken in quantities sufficient to support the people. No licenses were taken out in this district. The catch was about the same as last year at White Whale Lake, but less at Lac Ste. Anne, viz.:—

	Lbs.	Value.
White Whale Lake—Whitefish.....	110,000	\$6,050
Lac Ste. Anne—Whitefish.....	40,000	2,200
Totals	150,000	\$8,250

PIGEON LAKE DISTRICT.

Special Guardian Donald Whitford, who resides near Hollbroke, Alta., reports no infractions of the regulations. In April last he destroyed 21 gill-nets, which he had confiscated in the previous December from half-breeds for illegal fishing. A number of Indians were allowed to fish during the close season for their own use, with a limited amount of netting per family. Four domestic licenses were taken out by whites and half-breeds, and one by an Indian. The catch of fish was less than in 1892, owing to the enforcement of the regulations, and was as follows:—

	Lbs.	Value.
By Indians—Whitefish.....	30,000	\$1,650
By Whites and Half-breeds.....	50,000	2,750
Totals.....	80,000	\$4,400

EAGLE QUILL LAKE.

Special Guardian W. G. Knight, who lives at Swift Current, Assa., reports the regulations as having been well observed. Only two licensed fishermen operated during the past season, their catch aggregating 3,000 pounds whitefish, value \$150.

LONG LAKE DISTRICT.

Overseer John Foster, of Silton, Assa., reports that at the opening of the fishing season on the 1st of January, the whitefish had all finished spawning, and the close season as now arranged seems to exactly suit this lake. [Note by the inspector. For reasons explained in the annual report for 1892, and as empowered by the Fisheries Act, I refused to grant licenses for this lake till the 1st January. The same course was taken again this season. The report which accompanies this on the spawning of the whitefish in Long Lake, fully explains the reasons for refusing to grant licenses till 1st January.] The catch of whitefish throughout January till the 14th February was very good. It then fell off for two weeks, but during March and till the 15th April, the catch was very good, and during the open season continued good till the hot weather, when very little fishing is done, the distance from market being too great. During September and the first four days in October, a great number of

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whitefish were taken, and for a few days before the close season commenced all who were fishing in different sections for ten miles along the lake had a remarkable catch. Overseer Foster states that he is pleased to be able to state that Long Lake is well stocked with whitefish.

The amount taken by white men and half-breeds during the season was as follows:—

	Lbs.	Value.
Whitefish.....	32,000	\$1,600 00
Pike.....	14,000	280 00
Pickrel.....	6,000	180 00
Mixed fish.....	10,000	100 00
Totals.....	62,000	\$2,160 00

Indian catch as follows:—

	Lbs.	Value.
Whitefish.....	15,000	\$ 750 00
Pike.....	12,000	240 00
Pickrel.....	3,000	90 00
Mixed fish.....	15,000	150 00
Totals.....	45,000	\$1,230 00

There were fourteen whites and half-breeds engaged in fishing, and eleven Indians, all licensed; with 126 nets, valued at \$500.00.

During the year two draw lines, four nets, and one boat were confiscated for infraction of the regulations.

QU'APPELLE DISTRICT.

Special Guardian John Teader, jr., who lives on the north side of Wyosung Lake, reports that Wyosung and Pasqua Lakes have a good supply of pike, pickrel, perch, suckers, buffalo fish and tullibee; and there has been more whitefish caught there during the past season than for five years, namely, forty fish, all taken by the Indians.

Qu'Appelle Lake has still a few whitefish, and an abundance of tullibee and other fish. He saw thousands of tullibee at the dam last spring passing up, but there were very few whitefish among them.

In Mission Lake the catch of whitefish was better than for some years past, one fisherman taking as many as 35 in one haul, with three gill-nets, 45 yards in length each.

Katepwe Lake is the largest of the chain, and has the most fish of all kinds found in these waters. The level of this lake is about one foot higher than last year, which is due to the dam at Katepwe.

He is of the opinion that the close season could not be arranged at a better time, so far as the Qu'Appelle Lakes are concerned. The close season has caused a decided increase in the fish of all kinds, except whitefish, which were nearly exterminated before the regulations were enforced. Now a few are caught in all the lakes.

He gives the Indian catch of fish of all kinds as follows:—18,500 lbs., and the catch by whites and half-breeds as 23,500 lbs., or a total of 42,000 lbs.

	Lbs.	Value.
Whitefish.....	4,000 at 6 cts.	\$ 240 00
Tullibee.....	15,000 do 4 do	600 00
Pike.....	8,000 do 2 do	160 00
Pickrel.....	6,000 do 2 do	120 00
Suckers.....	9,000 do 1 do	90 00
Totals.....	42,000	\$1,210 00

Owing to the rigid enforcement of the regulations there has not been the same amount of fishing done as in other years. The Indians will not take out licenses, and the half-breeds say they cannot afford to pay \$2.00 for one. There were only nine fishermen, and free licenses were given to four Indians on Pasqua's Reserve to fish for their own use but not for sale. Free permits for one net of fifty yards length each were granted to four destitute or sick Indians to fish in close season. Free licenses for one net each were granted to two widowed half-breed women, who had no means of paying for a license.

Guardian Teader has seized, and delivered over to the Inspector, during 1893 in all twenty-seven gill-nets. Of these eleven belonged to half-breeds and sixteen to Indians. There is great difficulty in getting the Indians to observe the law as regards Sunday fishing, and the setting of nets in river channels and the mouths of streams, and fishing with the regulation-sized mesh. The nets seized were all under 5 inches, most of them 4½-inch mesh, and some of them as small as 3½ inches extension measure.

CROOKED AND BOUND LAKES DISTRICTS.

Mr. H. Sayer, who was guardian at Crooked Lake, resigned; and the services of Mr. Taillefer, who was guardian at Round Lake, were dispensed with. Special Guardian Gerald Fitzgerald was put in charge of both districts. Owing to the strict enforcement of the license regulation the catch was restricted to the taking of fish by means of hook and line, although a great many fish were taken in the streams early in the season illegally by means of spears and traps. No licenses were taken out. The catch was less than last year and was as follows, pike and suckers principally.

Crooked Lake—

	Lbs.	Value.
By Indians	10,000 at 2c.	\$200 00
Whites.....	30,000 "	600 00
Totals	<u>40,000</u>	<u>\$800 00</u>

No whitefish were caught.

	Lbs.	Value.
Round Lake.—Total catch.....	<u>5,000 at 2c.</u>	<u>\$100 00</u>

Guardian Fitzgerald heard of only one whitefish being caught in Round Lake. The estimated catch by Indians and settlers in Fishing Lake, north-east of the Big Touchwood Hills is 15,000 lbs. pike and suckers, value \$300. The catch in the White Sand River and Pelly countries was as follows:—

	Lbs.	Value.
Pike.....	130,000 at 2c.	\$2,600 00
Suckers.....	70,000 " 1c.	700 00
Totals... ..	<u>200,000</u>	<u>\$3,300 00</u>

CUMBERLAND HOUSE DISTRICT.

Special Guardian John A. Connor, corporal N. W. M. Police, who lives at Cumberland House, reports that he finds it impossible to give the exact number of fish caught. He has done his utmost, and with poor success. It is also impossible to get at the number of the different varieties, as the Indians keep no account of them. He reports this to have been the poorest fall fishing known in this district for several years; but does not explain why. The nets are up to the proper size, some are a shade small, but will soon be changed. The population of Cumberland is 383, including the Treaty people.

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THE PAS DISTRICT.

I have received no annual Report from the guardian, Isaiah Buck, but the close season was enforced and well observed there, for a space of 21 days during the spawning time of the whitefish. As the district is peopled solely by half-breeds and Indians, who live almost entirely on fish, and as it was the first time your department had attempted to enforce the law, twenty-one days was considered enough to start with.

I have the honour to be, sir,

Your obedient servant,

F. C. GILCHRIST,

Inspector of Fisheries.

REPORT ON THE SPAWNING OF THE WHITEFISH IN LONG LAKE, ASSA., N. W. T., BY F. C. GILCHRIST, INSPECTOR OF FISHERIES.

The present close season for whitefish in the North-west Territories extends from the 5th October to the 15th December. Several years ago, when I was overseer, it was represented to me that the whitefish in Long Lake did not spawn until "Christmas week." At that time the close season ran until the end of November only, and it was thought that if the whitefish did not spawn until the time stated a serious drain on the fisheries of Long Lake was going on; and one which, as fishing for the markets increased, would in a very few years deplete it of its whitefish. I brought matters before the department, but it was considered inadvisable to take such a serious step, as the lengthening of the close season over the whole territories for the sake of the fisheries of one lake; and especially as it was not shown at all conclusively, that the whitefish in that lake did not spawn within the close season. Since that time evidence proving that the close season was too short for several lakes in the North-west has been brought to the notice of the department; and, in consequence, the close season was extended to the 15th December. Still this was not long enough, and in December, 1892, I went to Long Lake and had a net set, and carefully examined all the whitefish caught. The results showed that the fish were in the height of spawning about the 15th to the 20th of the month, and, as empowered by the Fisheries Act, I refused to grant licenses till after the 1st January, by which time almost all the fish had finished spawning, and the fishermen began operations. Acting under instructions Overseer Foster set a short net in Long Lake under the ice on the 1st, 16th and 20th December, 1893, and on the 4th January, 1894, and caught a number of whitefish, which he labelled and carefully packed and shipped to me. These were examined, and the results with the observations of 1892, are embodied in detail in the following table:—

Table No. 1.

This table has the observations pertaining to the spawning only; and does not contain those that were taken at the same time referring to food, length of fish, etc., although I quite understand that in a critical diagnosis the contents of the stomach would have a considerable bearing on the results to be arrived at. Each fish was taken, and carefully measured from the end of its nose to the fork of its tail; accurately weighed, examined as to its condition, the amount of fat or its absence on the stomach and entrails being taken as a criterion; condition of the ovaries or milts as to spawning, and the character of food in the stomach and gullet. The results of the observations were astonishing, and are worthy of close study. In table No. 2 I have attempted to group the results, so as to put them in a more intelligible shape.

Table No. 2.

In this table, under the head of "Spawning" I have put not only those fish that were actually spawning, from just beginning to nearly spent, but also those that were "just ripe"; that is, those fish whose ovaries and milts were breaking but had not yet

begun to spend. Under the head of "Spent" were put those fish whose generative organs were entirely spent; but still had a mixed look and were more or less inflamed. These were quite distinct from those fish coming under the head of "Spent for weeks," that had spawned so long before that their organs had regained their normal condition, and the fish were fat and prime.

To summarize, throwing out those fish caught in February and October, 1893, which are not particularly relevant:—

30	fish	caught	between	the	1st	and	20th	December,	1892-93,	were	not	ripe.	
23	do	do			15th	and	20th	do	do				
58	do	do			1st	Dec.,	1892-93	and	4th	Jan.	1894,	were	spawning.
52	do	do			15th	do	do	do	do				
19	do	do			1st	do	do	do	do	had	spawned	long	ago.
0	do	do			8th	do	and	19th	Dec.,	1892,	were	"just	spent."
2	do	do			16th	do	do	do	do				
2	do	do			4th	January	1894	do	do	spawning.			
5	do	do			do					were	"just	spent."	
6	do	do			do					had	spawned	long	before.

On the 18th December, 1892, I examined without cutting open, about 80 white-fish that had been caught the night previous, 20 miles up the lake, in deeper water and on a harder bottom, none of which were frozen, and found a number of them to be not yet ripe; the rest were in various stages of spawning, and I did not see one that was spent.

This proves that the action of the department in refusing to allow fishing between the 15th December and the 1st January in Long Lake was the correct one; but it does not, by any means, settle the question of the spawning time of the white-fish in this lake. We know the time when the fish are in the height of spawning, and about when they have finished; but we do not know when those fish that come under the head of "spent for weeks" spawned. Out of the 131 fish caught and examined 27 come under this heading. None of the 27 were caught in October; and of the 9 fish taken in that month, not one was far enough advanced to spawn, and regain a condition fit to put it under the head of "Spent for weeks." One may theorize, but theories and ideas are not the things upon which to base laws and regulations that will, on the one hand, prevent people from catching and using fish they are really in need of, or, on the other, will allow them to go in and fish at a time when, if the fish are to be preserved, netting should be strictly prohibited. The many ideas we see advanced in print and on platforms, without proof even when it is asked for, as to the feeding and breeding habits of different fishes; the destructiveness of one kind of fish upon the ova, fry or adults of another, and as to the many other questions pertaining to the life history of fishes, teach one the necessity of care and accuracy; and it is in this spirit that the present report is submitted.

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TABLE No. 1.

No.	When Caught.	Where Caught	Depth of Water and Character of Bottom.	Weight of Fish.	Condition of Fish.	Ovaries.	Milts.	Remarks.
	1892.			lbs.oz.				
5	Dec. 8	Long Lake, Assa., on west side, 3 miles from south end.	7 ft. under ice, soft clayey mud.	2 12	Fair		Full, not ripe.	
6	do 8	do	do	4 8	Good	Full, not ripe		
7	do 12	do	do	4 0	Very fat	Very small ribbons.		Eggs just discernable.
8	do 15	do	do	2 12	Fair		Half spent	
9	do 15	do	do	2 14	do		do	
10	do 15	do	do	3 6	do		Full, not ripe.	
11	do 15	do	do	3 8	Good	Ripe but full		
12	do 15	do	do	3 12	do	do		
13	do 15	do	do	2 2	Fair		Ripe but full.	
14	do 15	do	do	3 8	Good	Nearly ripe		Very full ovaries.
15	do 15	do	do	3 12	Fair	Partly spent		
16	do 15	do	do	3 8	do	do		
17	do 15	do	do	3 5	do		Ripe but full.	
18	do 15	do	do	2 10	Very fat	2 strips		
19	do 15	do	do	2 12	Fair		Nearly spent.	
20	do 15	do	do	3 8	do	Ripe but full		
21	do 15	do	do	2 10	Very fat	See No. 7		
22	do 15	do	do	3 2	Fair		Nearly spent.	
23	do 15	do	do	2 8	do		do	
24	do 15	do	do	3 4	do		Not ripe, very full.	
25	do 15	do	do	2 14	do	Not ripe		Ovaries weighed
26	do 15	do	do	2 12	do		Ripe	9 oz.
27	do 15	do	do	3 2	do		Partly spent.	
28	do 15	do	do	3 6	do	Ripe		
29	do 15	do	do	3 3	do	Not q'te ripe		do
30	do 15	do	do	4 6	do	Ripe		
31	do 15	do	do	2 7	do		Nearly spent.	
32	do 15	do	do	3 12	do		Partly spent.	
33	do 15	do	do	2 14	do		Not ripe.	
34	do 15	do	do	3 8	do		do	
35	do 15	do	do	3 8	do	Not q'te ripe		Ovaries weighed
36	do 15	do	do	2 6	do		Not ripe.	10 oz.
37	do 15	do	do	3 0	do		Half spent.	
38	do 15	do	do	2 12	Poor		do	
39	do 15	do	do	2 7	Fair		Nearly spent.	
40	do 15	do	do	2 10	do		Not quite ripe.	
41	do 15	do	do	3 0	do		do	
42	do 15	do	do	2 14	do		do	
43	do 15	do	do	3 14	do	Not q'te ripe		
44	do 15	do	do	3 10	do		Half spent.	
45	do 15	do	do	3 0	do	Ripe		
46	do 15	do	do	4 0	do		Half spent.	
47	do 15	do	do	2 8	Poor	Nearly spent		
48	do 15	do	do	3 0	Fair		Ripe	
49	do 16	do	do	2 6	do		Half spent.	
50	do 16	do	do	3 0	do		do	
51	do 16	do	do	3 0	do	Ripe		
52	do 16	do	do	2 10	Poor		Ripe	
53	do 16	do	do	4 7	Fair	Not q'te ripe		Ovaries weighed
54	do 16	do	do	3 14	Good	do		12 oz.
55	do 16	do	do	3 8	do	do		
56	do 16	do	do	4 8	do	do		do
57	do 16	do	do	3 4	Fair		Ripe	
58	do 16	do	do	3 12	do	Not q'te ripe		
59	do 16	do	do	3 2	do	do	Half spent.	
60	do 16	do	do	2 12	Poor		do	
61	do 16	do	do	2 2	Very fat		Strings	Milts undeveloped.

TABLE No. 1—Continued.

No.	When Caught.	Where Caught	Depth of Water and Character of Bottom.	Weight of Fish.	Condition of Fish.	Ovaries.	Milts.	Remarks.
	1892.			lbs. oz.				
62	Dec. 16	Long Lake, Assa., on west side, 3 miles from south end.	7 ft. under ice, soft clayey mud.	3 0	Poor		Half spent	
63	do 16	do	do	3 14	Fair		do	
64	do 16	do	do	3 8	do	Ripe		
65	do 16	do	do	3 13	Poor		Half spent	
66	do 16	do	do	6 2	Good		do	
67	do 16	do	do	2 4	Very fat		See 61	
68	do 16	do	do	3 4	Fair		Ripe	
70	do 16	do	do	2 10	do		Nearly spent	
71	do 16	do	do	3 11	do	Not q'te ripe		
72	do 16	do	do	3 6	do	Half spent		
73	do 16	Long Lake, Assa., on east side, 12 miles from south end.	12 ft. under ice, soft clayey bottom.	3 4	do	Ripe		
74	do 16	do	do	4 0	Good	do		
75	do 17	do	do	4 0	do	Not q'te ripe		
76	do 17	do	do	3 8	Fair	Ripe		
77	do 18	do	do	3 0	do	Just ripe		
78	do 18	do	do	3 5	Poor	Half spent		
79	do 18	do	do	3 0	Fair		Half spent	
80	do 18	do	do	4 0	do	Not q'te ripe		
81	do 19	Long Lake, Assa., same as No. 70.	7 do	2 4	Good		Not quite ripe.	
82	do 8	do	do	4 0	Fair	Just ripe		
83	do 12	do	do	3 4	do		Not quite ripe.	
	1893.							
84	Feb. 15	Long Lake, Assa., 6 miles from south end.	40 do	5 12	Good		Ribbons	
85	do 15	do	do	5 12	Fair	Ribbons		
86	do 15	do	do	6 4	Good	do		
87	do 15	do	do	5 4	Poor	do		
88	do 15	do	do	6 8	Fat		Strings	
89	do 15	do	do	5 14	Very fat		do	
90	do 15	do	do	6 6	do		do	
91	do 15	do	do	5 12	do		Narrow ribbons	
142	Oct. 19	Long Lake, Assa., same as No. 70.	7 feet open water, soft clayey bottom.	3 8	Fair	Not ripe (8oz)		Ova 6 weeks or more from ripe.
143	do 19	do	do	4 10	do	do		do
144	do 19	do	do	6 6	do	do (12oz)		do
145	do 19	do	do	3 6	do	do		Ova more than 6 weeks from ripe
146	do 19	do	do	4 14	do	4 weeks from ripe.		
147	do 19	do	do	3 6	do	See 145		
148	do 19	do	do	4 6	do		Far from ripe.	
149	do 19	do	do	2 12	do	See 142		
150	do 19	do	do	3 6	do		Far from ripe.	
151	Dec. 1	Long Lake, Assa., west side, 3 miles from south end.	7 ft. under ice, soft clayey bottom.	2 14	Good		Full but not ripe.	

Fisheries Report.

TABLE No. 1—*Concluded.*

No.	When Caught.	Where Caught	Depth of Water and Character of Bottom.	Weight of Fish.	Condition of Fish.	Ovaries.	Milts.	Remarks.
	1893.			lbs.oz.				
152	Dec. 1	Long Lake, Assa., west side, 3 miles from south end.	7 ft. under ice, soft clayey bottom.	3 0	Very fat	See remarks.		Ova sacs very small, eggs hardly discernible, bright, and no inflammation.
153	do 1	do ..	do ..	3 2	Fair	Full and just ripe.		
154	do 1	do ..	do ..	2 6	Fat	See No. 152.		
155	do 1	do ..	do ..	2 8	Good		See 151.	
156	do 1	do ..	do ..	2 12	do		do	
157	do 1	do ..	do ..	2 14	Fair		do	
158	do 1	do ..	do ..	4 0	Very fat	See No. 152.		
159	do 1	do ..	do ..	3 0	Fair		Just ripe.	
160	do 1	do ..	do ..	2 4	do		do	
161	do 1	do ..	do ..	3 4	Very fat	See No. 152.		
162	do 1	do ..	do ..	2 14	Poor	Just ripe		
163	do 16	do ..	do ..	2 12	do		Ripe	
164	do 16	do ..	do ..	2 8	Very fat	See No. 152.		
165	do 16	do ..	do ..	2 8	do	do		
166	do 16	do ..	do ..	2 10	Poor		Ripe	
167	do 16	do ..	do ..	3 8	Very fat	See No. 152.		
168	do 16	do ..	do ..	3 6	Poor	Just spent.		Ovaries had mixed look and inflamed.
169	do 16	do ..	do ..	3 4	Very fat	See No. 152.		
170	do 16	do ..	do ..	4 0	Poor	See 168.		
171	do 20	do ..	do ..	2 10	do	Full but not quite ripe.		Ovaries weighed 7 oz.
172	do 20	do ..	do ..	2 12	do		Half spent.	
173	do 20	do ..	do ..	2 8	Fat	See No. 152.		
	1894.							
174	Jan. 4	Long Lake, Assa., at Cain's Point 5 miles from south end.	8 ft. do	2 12	Fair	Just ripe		
175	do 4	do ..	do ..	2 6	Fat	See No. 152.		
176	do 4	do ..	do ..	3 8	Very fat	do		
177	do 4	do ..	do ..	2 6	do		Strings	
178	do 4	do ..	do ..	1 12	Fair		just spent.	Milts very small, soft and infla'd.
179	do 4	do ..	do ..	3 12	Fat	See No. 152.		
180	do 4	do ..	do ..	3 6	Poor	do 168.		
181	do 4	do ..	do ..	2 2	Very fat	do 152.		
182	do 4	do ..	do ..	6 2	Good		Half spent.	
183	do 4	do ..	do ..	1 9	Fair		Strings	
184	do 4	do ..	do ..	1 6	do	Strings.		
185	do 4	do ..	do ..	2 12	Poor	Just spent.		See No. 168.

TABLE NO. 2.

Date when caught.	Sexes.	Not ripe.	Spawning.	Spent for weeks.	Spent.
8th December, 1892	{ Female...	1	1		
	{ Male	1			
12th do do	{ Female...			1	
	{ Male	1			
15th do do	{ Female...	5	9	2	
	{ Male	8	17		
16th do do	{ Female...	6	5		
	{ Male		12	2	
17th do do	{ Female...	1	1		
	{ Male				
18th do do	{ Female...	1	2		
	{ Male		1		
19th do do	{ Female...				
	{ Male	1	1		
15th February 1893	{ Female...			3	
	{ Male			5	
19th October, do	{ Female...	7			
	{ Male	2			
1st December do	{ Female...		2	4	
	{ Male	4	2		
16th do do	{ Female...			4	2
	{ Male		2		
20th do do	{ Female...	1		1	
	{ Male		1		
4th January, 1894	{ Female...		1	4	3
	{ Male		1	1	2

Fisheries Report.

FISHERY STATISTICS in the North-west Territories.

	Popula- tion.	Number of Whitefish.	Number of Tullibee.	Pike, Lake Trout, &c.	Sturgeon.	Gold-eyes and Suckers.
Cumberland District	2,700	2,000,000		1,000,000		
Montreal and Lac La Rouge	500	180,000		90,000		
Sturgeon Lake	250	1,500		1,000		
Green and Assiniboine Lakes	600	166,666		84,000		
Isle à la Crosse	250	120,000		60,000		
Snake Plain and adjacent small lakes	400	15,000		15,000		
Prince Albert District						
North and South Saskatchewan as far east as La Corne				1,100	3,150	7,000
Fishing lakes south of South Sas- katchewan				3,500		1,500
Population	4,700					
No. of fish		2,583,166		1,254,600	3,150	8,500
No. of lbs		10,332,664		7,527,600	47,250	8,500
Battleford District		80,000				
Lac La Biche District		215,000				
Edmonton do		150,000				
Pigeon Lake do		80,000				
Eagle Quill Lake District		3,000				
Long Lake do		47,000		35,000		25,000
Qu'Appelle Lakes do		4,000	15,000	14,000		9,000
Crooked & Round Lakes District				45,000		
Fishing Lake and White Sand River District				145,000		70,000
Totals in lbs		10,911,664	15,000	7,766,600	47,250	112,500
Values		\$600,141 50	\$ 450 00	\$155,332 00	\$1,417 50	\$1,125 00

RECAPITULATION of the Fisheries in North-west Territories.

Kinds of Fish.	Quantity.	
	Lbs.	\$
Whitefish	10,911,664	600,141 50
Tullibee	15,000	450 00
Pike, pickerel and lake trout	7,766,600	155,332 00
Sturgeon	47,250	1,417 50
Suckers, gold-eyes, &c	112,500	1,125 00
Totals	18,853,014	758,466 00

RECAPITULATION

OF the Yield and Value of the Fisheries of **Manitoba** and **North-west Territories**, for the Year 1893.

Kinds of Fish.	Quantity.	Value.
		\$ cts.
Whitefish.....	Brls. 672½	6,725 00
do	Lbs. 15,307,419	819,929 50
Pickarel.....	“ 1,366,971	33,343 00
Pike.....	“ 7,573,060	151,461 00
Sturgeon.....	“ 84,450	2,533 50
Tullibee.....	“ 68,600	2,058 00
Mixed and coarse fish.....	“ 1,240,800	12,408 00
Home consumption not included above.....	“ 1,363,515	13,635 00
Total.....		1,042,093 00

Fisheries Report.

APPENDIX No. II.

BRITISH COLUMBIA.

ANNUAL REPORT ON THE FISHERIES OF BRITISH COLUMBIA FOR THE YEAR 1893.

NEW WESTMINSTER, 10th January, 1894.

Honourable Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual statistical report of the fisheries of British Columbia for the year ending 31st December, 1893.

During the season I issued 1,625 licenses to fish for salmon with drift nets, viz.:

To cannery men on the Fraser River	508
Fishermen do	522
Exporters and traders do	28
Farmers do	14
Northern coast and rivers—	
To canneries.....	295
Fishermen	258
	<u>1,625</u>

I also issued licenses for seven seines, and one license granting an exclusive privilege to fish for commercial purposes in the Kimpkish River.

The output of salmon from the Fraser River canneries during 1893 was over 50 per cent greater than the output of any former year in the history of the industry, while the export of salmon (fresh in ice) has also largely increased.

The value of salmon canned in the province in	
1893 at 10 cents per 1 pound can is.....	\$2,916,990 80
1892, at 12 cents per 1 pound can.	1,378,631 04
Increase in 1893.....	<u>\$1,538,359 76</u>

The products of the fisheries in the aggregate also show a very large increase over former years. Estimated at the prices quoted in 1892, the result shows a balance in favour of 1893 of \$2,444,171. At the reduced quotations adopted the comparison is:

1893—total value.....	\$4,437,963 20
1892 do	2,849,483 64
Increase 1893.....	<u>\$1,588,479 56</u>

The catch of fur seal skins shows a large increase compared with that of 1892 :

1893, at \$12 per skin	\$837,984
1892, at \$13 per skin	602,706
Increase, 1893	<u>\$235,278</u>

Although several new canneries were built in 1893, their value has been offset by the decrease in the sealing fleet, leaving the amount of capital invested in the various branches of the fishing industry in 1893 almost identical with that employed in the previous year.

Total capital invested, 1892	\$1,771,352
do do	1,721,527
Decrease, 1893.....	<u>\$49,825</u>

The number of hands employed in fishing, canning and sealing during 1893 was 13,943, against 8,170 in the previous year.

The establishment of extensive salmon fisheries at Point Robert, but a few miles from the mouth of the Fraser River, where trap-nets having very long leaders are used for the capture of salmon, are looked upon as a source of danger to the industry on the Fraser by many of our most experienced fishermen. Whether the existence of extensive traps so near the entrance of the river will prove detrimental beyond catching great quantities of salmon, which would otherwise enter the Fraser River, remains to be seen; but in the meantime effective means should be used to guard against any encroachment or poaching by fishermen employed in connection therewith.

Shad are becoming more plentiful in the Fraser River, and also at Rivers Inlet. Preparations are being made to prosecute Sturgeon fishing on a larger and more systematic manner than formerly.

PROTECTION OF FISHERIES.

The fishery protection service during the season was satisfactory, but with the opening of the inland waters to net fishing, and a yearly increasing number of saw mills being erected, together with a large increase in the number of hydraulic mines expected to be in operation next summer on creeks which flow into the Fraser River, it will be necessary to provide for a more thorough system of protection of the inland waters of the province.

REPORTS OF FISHERY GUARDIANS.

Fraser River.—Guardian Grant reports that notwithstanding the great number of fishermen employed on the river, he found but very few violations of the regulations, all of which he promptly reported; that he patrolled the river daily in the steam launch, and is satisfied that the weekly close time was strictly observed in his district.

Naas River.—Guardian Spain reported that the salmon were scarce in his district, and the pack small, that the fishery regulations were well observed, and that no violation of the law had occurred in his district.

Rivers Inlet.—Guardian Wm. Roxbury reports that the fishing on Rivers Inlet has been very good this year.

The run of fish was steady and continuous giving canners ample time to complete their pack, and put up a few salt fish.

Had it not been for an attack of "la grippe" or influenza amongst the employees of the canneries, the pack would have been filled up in much less time than usual, in fact the Indian fishermen say it has been the best run for twelve years.

Fisheries Report.

There was no waste of fish at the canneries as the weather was cool, and the boats were taken off as soon as the supply of fish was greater than they could get away with.

I had some trouble at the commencement of the season with the Indian fishermen. They have the idea that because they cannot fish as high up the river as they please, their rights are being encroached on; and although they came down when ordered, yet they were saucy and slow to do so, but by explaining to them the object of the limit, and watching them closely, I had no trouble with them towards the close of the season.

I would suggest, however, that next season a beacon be placed in the middle of the river to mark the limit. This would be visible and tangible and the Indians would understand it better than a line from N.E. to S.W., and as some of the Indians cannot or will not understand either Chinook or English, would save a deal of good deal of explanation. This beacon could be put up by the guardian with very little help.

NEW WESTMINSTER, B.C., 16th December, 1893.

Skeena River.—Guardian Thos. McNeist report: Sir,—I have the honour to report as fishery guardian of the Skeena River district for the past season.

According to your instructions I left Westminister on the 29th of April for Skeena River via Victoria, and arrived there on the 6th May. Upon my arrival there I found a number of Indian boats fishing without licenses. The reason of this is that licenses are only obtainable at New Westminister. On payment of the license fee of \$20.00, I allowed them to continue fishing and forwarded the amount and application to you. As many of the Indians come from the interior and do not arrive at the coast till the fishing season is about to commence, and as there is such long intervals between mails it is impossible for them to get their licenses in time to fish during the season.

I regret to state that the present season's operations were not successful.

This being an off year, or year of small run, and not perhaps so much on account of a small run as the want of snow in the mountains to create a freshet to discolour the water, and therefore the fish could not be caught by gill-nets, the canners failed to get more than two-thirds of a pack.

The law was well observed during the fishing season with two exceptions.

One a violation of the weekly close time which is to be attributed more to the ignorance of the Indians than an attempt of the cannery manager to evade the law.

The other was, in my opinion, the wilful neglect of the manager, and for both of which offences fines were collected.

I have the honour to be, sir,

Your obedient servant,

JOHN McNAB,
Inspector of Fisheries for British Columbia.

A.—SCHEDULE of Canneries operated in British Columbia during the Season of 1893.

Owner or Agent.	Name of Cannery.	Year first operated.	No. of boats.	No. of hands.	Packed in 1-lb. cans.	
					1892.	1893.
<i>Fraser River.</i>						
Bon Accord Fishing Co.....	Bon Accord	1879	27	211	884,480	2,109,600
	Sea Island	1890	40	240		
J. H. Todd & Son.....	Beaver	1889	35	270	609,600	1,573,536
		Richmond	1882	35			270
Ewen & Co.....	Ewen's	1876	40	332	384,000	2,112,000
H. E. Harlock & Co.....	Harlock's	1882	30	220	200,064	722,640
B. C. Canning Co., (London)	Fraser River Cannery.....	1876	30	270	36,400	640,900
		Delta	1887	40	250	204,000	872,960
Victoria Canning Co.....	Wellington.....	1880	40	230	288,000	615,200
T. E. Ladner, Manager.....	Laidlaw's	1878	40	250	192,800	610,122
		Holly	1890	40	250	180,000	662,400
	Wadham's.....	1887	40			
	British Columbia.....	1887	36			
	British American.....	1887	36			
Anglo-British Columbia Packing Co. (Limited), H. Bell-Irving, Agent, Vancouver, B.C.	Canoe Pass	1889	36	3,000	1,532,208	6,296,832
	Phoenix	1887	36			
	Gary Point.....	1889	36			
	Annandale.....	1891	36			
	Dumfries.....	1891	36			
Terra Nova Packing Co.....	Terra Nova.....	1892	35	270	216,000	794,400
Lulu Island Canning Co.....	Lulu Island	1893	30	210		1,032,000
Pacific Coast Packing Co.....	Pacific Coast.....	1893	30	290		736,800
Stemston Canning Co.....	Stemston.....	1893	30	270		1,056,000
Short & Squires.....	Imperial.....	1893	30	290		816,000
Canada Pacific Packing Co.....	Canada Pacific.....	1893	35	400		1,296,000
Brunswick Canning Co.....	Brunswick	1893	30	262		816,000
	Total Fraser River.....				3,217,552	22,763,380
<i>Skeena River.</i>						
Rithet & Co.....	Standard	1890	40	185	540,000	354,432
Byrnes & Cuthbert.....	Balmoral	1886	30	182	540,000	305,856
Dalby & Claxton.....	Royal Canadian	1892	40	242	576,000	456,000
Cunningham & Son.....	Skeena.....	1883	39	220	540,000	387,120
A. B. C. Packing Co.....	British American.....	1883	30	196	540,000	364,800
do do.....	North Pacific.....	1889	40	153	540,000	355,200
B. C. Canning Co., London.....	Windsor.....	1878	40	209	540,000	321,600
Turner, Beeton & Co.....	Inverness.....	1878	40	185	540,000	288,000
Cunningham & Rood.....	Low's Inlet Cannery.....	1890	8	136	540,000	420,144
<i>Naas River.</i>						
Federation Canning Co.....	Federation.....	1888	40	169	540,000	360,000
Rithet & Co.....	Cascade	1889	30	141	360,000	200,640
B. C. Canning Co., London.....	B. C. Cannery.....	1889	30	157	352,800	192,000
<i>Rivers Inlet.</i>						
B. C. Canning Co., London, Eng {	Rivers Inlet Cannery.....	1882	35	200	264,000	720,000
	Victoria	1882	35	200	230,400	500,000
McNeil & McDowell.....	Warnock	1884	35	186	223,440	480,000
S. A. Spencer.....	Alert Bay Cannery.....	1881	8	100	206,400	177,936
H. Price & Co.....	Price's Cannery.....	1836	24	73	288,000	312,000
Dearnly & Skitbolt.....	Nanaimo Cannery.....	1893	8	62		210,800
	Total Coast.....				7,211,040	6,406,528
	Fraser River.....				4,217,552	22,763,380
	Grand Total.....					29,169,908

Fisheries Report.

B.—RETURN showing the Number, Tonnage and Value of Vessels and Boats, and the Number of Men engaged in the Fisheries, Quantity of Value of Fishing Materials, Kinds and Quantities of Fish, &c., in the Province of British Columbia, for the Year 1893.

LOCALITY.	VESSELS AND BOATS EMPLOYED.						FISHING MATERIALS.						KINDS OF FISH AND FISH PRODUCTS.									
	Vessels.			Boats.			Gill-nets.		Seines.		Value of trawl lines.		Salmon, brls.*		Salmon, fresh, lbs.*		Salmon, smoked, lbs.		Salmon, in cans.*		Sturgeon, lbs.	
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	Fathoms.	Value.	Fathoms.	Value.	Fathoms.	Value.	Fathoms.	Value.	Fathoms.	Value.	Fathoms.	Value.	Fathoms.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Fraser River District, including Howe Sound and Burrard Inlet.....	26	550	102300	60	1465	5000	83427	176000	132000	1800	3000	1250	3866	2736000	91000	22763380	130000					
Howe Sound to Rivers Inlet.....	3	90	11000	9	130	5100	680	18550	13962	520	900	100	1000	10000	6240	1877936						
Rivers Inlet to Skeena River.....	10	450	60000	30	434	21000	2500	95400	71500	1150	2950	506	737	285200		3775952						
Skeena River to Alaska.....	2	35	4500	6	125	6110	500	24500	18375				100	8000	20000	752340						
East Coast of Queen Charlotte Islands.....					25	3750	110	2500	2500	250	350											
West Coast of Queen Charlotte Islands.....					20	2000	60	1200	900	300	450											
Cape Scott to Comox.....					12	1000	30	300	200	300	450											
Comox to Victoria.....	50	250	10150	150	57	3000	100	1200	750	4000	7500	4000	60	500000	10000							
Victoria to Cape Beale.....	2	40	1000	6	16	1100	45	750	430	1000	1500	5500	100	27500	8000							
Cape Beale to Cape Scott.....					10	650	25	1000	750			150	550	2500	1000							
Totals.....	93	1415	198900	261	2287	93710	12389	321400	241367	9320	17100	14250	5688	3594200	143240	29169908	330000					

* I have reduced the quotation for salmon in cans from 12 cts. to 10 cts., their full value this season; I have also reduced the price quoted for fresh salmon from 10 cts. per pound, which was always too high, to 5 cts., their full value here; also salmon in barrels from \$12 to \$6, their full value this season.—J. McNAB.

B.—RETURN showing the Number, Tonnage and Value of Vessels and Boats, &c.—Province of British Columbia—Continued.

LOCALITY.	KINDS OF FISH AND FISH PRODUCTS.													VALUE.				
	Hairbut, lbs.	Herring, lbs.	Herring, salted, lbs.	Herring, smoked, lbs.	Oulachons, salted, lbs.	Oulachons, fresh, lbs.	Oulachons, smoked, lbs.	Trout, lbs.	Assorted or mixed fish, lbs.	Smelt, fresh, lbs.	Codfish, lbs.	Skull, lbs.	Fur Seal skins, No.		Hair Seal skins, No.	Sea Otter Skins, No.	Fish Oils, galls.	
Fraser River District, including Howe Sound and Bur-																		
ard Inlet.....	636800	250000			25	46000	10000	25000	180000	50000	224000	22					7750	
Howe Sound to River Inlet.....	25000	5000			110	10000	500	2000	1500		5000			350			3000	
Rivers Inlet to Skeena River.....	20000				263	10000		800						2000			14000	
Skeena River to Alaska.....	10000	5000			500	60000	2000	600	250					150			10000	
East Coast of Queen Charlotte Islands.....	25000	23000	150	3000					10000			25		1000			60000	
West Coast of Queen Charlotte Islands.....	15000	15000		3000					50000		10000	25		500	15		12500	
Cape Scott to Comox.....	1000	14000		1000				10000	10000	5000	10000			150			10000	
Comox to Victoria.....	600000	130000	100	1200	50	60000	5000	12500	25000	25000	200000	5					25000	
Victoria to Cape Beale.....	26000	10000						5000	20000		8000						20000	
Cape Beale to Cape Scott.....	10000	6000		500				500	8000		5000						10000	
Totals.....	1373900	458000	250	8700	948	186000	17500	56400	304750	80000	462000	77		4150	15	172250	3,406,209	
Canadian fur seal fleet.....																		837,984
Oysters, 4,000 bushels at \$2 per bushel, \$8,000; clams, 12,500 bushels, \$10.625; mussels, \$480; shrimps and prawns, \$5,000.																		24,105
Crabs, 600,000, \$18,000; abalones, 3,000 lbs. at 20 cts., \$600; isinglass, 2,000 lbs. at 30 cts., \$600.																		19,200
Fish guano, made from salmon offal on Fraser River, 25 tons at \$15 per ton.																		375
Estimate of fish of various kinds consumed by Indians and others in the interior of the provinces, not included above.....																		150,000
Value of fur seal skins landed in Victoria by United States vessels.....																		4,437,963
Grand Total.....														69832				3,120
														260				4,441,083

Fisheries Report.

C.—REPORT of Catch, &c., of British Columbia Sealing Fleet, Season 1893.

Vessels.	Tons.	Value.	CREWS.				Boats.	Canoes.	Masters.	B. C. Coast.	CATCH.		Total.
			Whites.	Indians.	Japan Coast.	Russian Side.							
Triumph	98	10,000	7	28	4	14	C. N. Cox	1,713		623	2,336		
Sapphire	108	10,000	8	26	12	3	Wm. Cox	1,262		341	1,603		
E. B. Marven	117	10,000	27	8			J. Gould	1,014		517	1,535		
Mascot	40	4,500	7	14	2	7	H. F. Simard	857		327	1,184		
Dora Simard	94	10,000	24	7			R. A. Lavender	1,426		434	1,860		
Labrador	25	4,500	11	4			J. J. Whitely	263			263		
Minnie	46	1,000	5	20	2	10	J. Mohrhouse	489		20	509		
Annie E. Paint	82	9,500	23	8			A. Bissett	740		491	1,141		
Mischief	45	7,500	6	20	2	10	W. Petit	344			344		
Driard	50	7,000	19	6			A. Neilson	707		294	1,001		
Venture	48	5,000	4	16	2	8	G. McDonald	82			82		
Mermaid	73	7,100	23	8			W. H. Whitely	940		315	1,255		
Fawn	59	7,500	3	21	2	10	S. Magnesen	806		77	883		
W. A. Earle	68	8,000	23	6			T. Magnesen	1,622			1,622		
Beatrice	66	6,500	5	24	2	12	D. McAuly	655			655		
Ocean Bell	83	8,000	25	8			J. O'Leary	1,316		547	1,863		
Mountain Chief	23	900	1	19		9	Nawassunt	128			128		
Arietas	86	8,000	23		7		A. Douglas		964	464	1,384		
Cape Beale	13	3,000		10		5	Quap	86			86		
Kate	58	4,500	7	16	2	8	J. Floater	293			293		
Favourite	80	6,000	7	26	3	13	L. McLearn	949			949		
Borealis	37	8,000	6	20	2	10	G. Meyer	1,307			1,307		
Ainako	75	7,500	5	14	1	7	G. Hester	1,344		46	1,390		
W. P. Saywards	64	6,000	5	16	1	8	G. Ferry	596			596		
Katherine	82	4,000	6	19	2	9	W. McDougall	352		363	715		
San Jose	31	6,000	4	16	2	8	R. E. Crowell	242			242		
Enterprise	69	10,000	24	7			J. W. Todd		1,027	274	1,301		
Agnes McDonald	107	9,000	25	7			M. F. Cutler		2,333	433	2,766		
Victoria	63	9,500	6	20	2	10	H. L. Hughes	420			420		
Rosie Alsen	39	5,000	5	24	2	12	A. Whedden	658			658		
Wanderer	25	3,000	4	16	1	8	H. Paxton	206			206		
Lena	92	9,000	23	6			J. W. Anderson		1,441	30	1,471		
May Belle	58	7,000	20	5			C. J. Harris		1,852		1,852		
Unbrine	98	10,000	24	7			— Campbell		1,827	628	2,452		
Penelope	70	11,000	20	6			F. Cole		2,291		2,291		
Lena	60	1,090	19	5			W. Shields		1,910	99	2,009		
Pioneer	66	7,000	6	23	1	11	J. McLeod	1,050			1,050		
Otto	86	12,000	8	24	2	12	M. Keefe	630		397	1,027		
May Taylor	42	4,000	18	5			E. Shields	845		240	1,085		
Brenda	100	10,000	26	8			C. E. Locke	845		408	1,253		
Libbie	93	10,000	23	7			H. Hackett		1,242	389	1,631		
City of San Diego	46	4,500	14	5			J. M. Pike		942	101	1,043		
Geneva	92	9,500	26	8			W. O'Leary		1,612	454	2,066		
Casco	63	6,000	19	6			O. Buckley		1,473	199	1,672		
Charlotte G. Cox	76	10,000	24	7			W. Byers		2,396	376	2,772		
Oscar and Hattie	81	9,500	24	7			W. E. Baker		1,178	1,020	2,198		
Teresa	63	6,000	20	6			E. Loreing		677	147	824		
Sadie Purple	56	10,000	24	7			C. L. Blanc		927	475	1,402		
Maud S	97	6,000	24	7			R. E. McKeil		989	58	1,047		
May Ellen	63	6,000	23	7			W. O. Hughes		1,573	406	1,979		
W. L. Rich	76	10,000	24	7			S. Balcom	1,321		577	1,838		
Annie C. Moore	113	10,000	26	8			J. Daley		822	333	1,155		
W. P. Hall	98	9,000	23	7			J. A. Brown		768	263	1,031		
Beatrice	49	4,500	20	5					1,411	39	1,450		
C. D. Rand	67	6,500	21	6				1,060			1,060		
	3,743	384,200	847	432	256	204					68,231		
Indian catch in canoes								2,035	66		2,101		
Caught by American vessels and landed in Victoria											70,332		
											260		
Grand Total											70,592		

256 boats, \$100 each..... \$ 25,600
 204 canoes, \$25 each..... 5,100

D.—CAPITAL invested in Fisheries and Fishing Material, including the Fur Seal Fleet, Boats, &c., of British Columbia, during the Year 1893.

Material.	Value.	Total.
	\$	\$
44 salmon canneries, complete	880,000	
12 oil factories	38,000	
2 freezing establishments	18,000	
7 salteries	4,200	
93 fishing vessels, 1,415 tons, manned by 261 men	188,950	
2,287 boats employed in fishing	93,710	
321,000 fathoms of gill-nets	241,367	
9,320 do seines	17,100	
Trawl lines	14,250	
		1,495,577
256 boats employed in fur-seal fishing	25,600	
204 canoes do do	5 100	
55 vessels do do	384,200	
		414,900
Grand total		1,910,477
Hands employed in connection with fishing in boats		12,392
do do vessels		261
Sailors and hunters in sealing fleet—		
Whites		847
Indians		432
		13,932

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E.—RECAPITULATION of the Yield and Value of the Fisheries of British Columbia, for the Year 1893.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ cts.	\$ cts.
Salmon, in 1-lb. cans	29,169,308	0 10	2,916,990 80
do fresh..... Lbs.	3,594,200	0 05	179,710 00
do salted..... Brls.	5,688	8 00	45,504 00
do smoked..... Lbs.	143,240	0 06	8,504 40
Sturgeon, fresh..... "	330,000	0 05	16,500 00
Halibut do..... "	1,373,900	0 05	68,695 00
Herring do..... "	458,000	0 05	22,900 00
do smoked..... "	8,700	0 10	870 00
do salted..... Brls.	250	6 00	1,500 00
Oulachons, fresh..... Lbs.	186,000	0 05	9,300 00
do smoked..... "	17,500	0 06	1,050 00
do salted..... Lbs.	948	8 00	7,584 00
Trout, fresh..... Lbs.	56,400	0 10	5,640 00
Fish, assorted and mixed..... "	304,750	0 05	15,237 50
Smelts, fresh..... "	80,000	0 05	4,000 00
Cod-fish, fresh..... "	462,000	0 06	27,720 00
Skill, salted..... Brls.	77	8 00	616 00
Fur-seal skins..... No.	70,332	12 00	843,984 00
Hair do..... "	4,150	0 75	3,112 50
Sea-otter skins..... "	15	125 00	1,875 00
Oysters..... Bush.	4,000	2 00	8,000 00
Clams..... Shell.	12,500	0 85	10,625 00
Mussels..... "	600	0 80	480 00
Crabs..... No.	600,000	0 03	18,000 00
Abalones..... Lbs.	3,000	0 20	600 00
Isinglass..... "	2,000	0 30	600 00
Shrimps and prawns..... "			5,000 00
Estimate of the fish consumed in the province and not included in the above enumeration.....			150,000 00
Fish oil..... Galls.	172,250	0 40	68,900 00
Guano, made from offal..... Tons.	15	25 00	375 00
Value of fur-seal skins landed in Victoria by United States vessels.....			4,443,963 20
			3,120 00
Total.....			4,447,083 20

APPENDIX No. 12.

ONTARIO.

SYNOPSIS OF FISHERY OVERSEERS' REPORTS IN THE PROVINCE OF
ONTARIO, FOR THE YEAR 1893.

LAKE OF THE WOODS DIVISION.

Officer J. W. Colcleugh, of Rat Portage, who has charge of the Lake of the Woods, issued twenty-six fishing licenses during last season. The yield of whitefish alone exceeds 360,000 lbs. The other kinds are pickerel, pike and sturgeon. The total catch of fish is valued at \$30,600.

LAKE SUPERIOR DIVISION.

Overseer D. F. Macdonell again refers to the great difficulty he experiences in obtaining reliable data from fishermen of their catch of fish. There is a slight improvement in the general yield of fish in this district, even in trout and whitefish. During the close season he made two general trips over his division, but found no evidence of any violation of the laws. All nets measured by him were of the regulation size. The Indians also observed the close seasons better than usual. Early in the season this officer notified all the fishermen in this district that any infraction of the law regarding the throwing of offal in the lake would be severely dealt with, and he thinks that it had the effect of curtailing this evil practice among fishermen. Mr. Macdonald prefers fishing with pound nets to the use of gill-nets. The value of the fisheries of the upper part of Lake Superior, as far as Otter Head, is given at \$94,670, an increase of \$5,000 over 1892.

Overseer T. H. Elliott, in the Lake Superior portion of his division, reports an increase of 86,000 lbs. of whitefish over last year. This is ascribed to the fact that the Lizard Island grounds were fished this year, and also to the protection of the Sandy and Parisienne Islands' grounds, where fishing this season was better than for many years. There was a slight decrease in the catch of salmon trout as the boats engaged in fishing for salmon trout in 1892 at Lizard Island, were this season employed in fishing for whitefish. The adoption of the system of licensing boats instead of areas gave general satisfaction in these waters. The yield of this southern portion of the lake is valued at \$88,567, making a grand total value of \$183,237, for the whole of Lake Superior, being an increase of \$22,500, over the yield of the previous year.

LAKE HURON.

North Channel, or Manitoulin Island Division.

Mr. Elliott, who has also charge of this division extending to French River on Georgian Bay, reports a considerable decrease in the different kinds of fish, except coarse fish, and says:

"This large decrease in this season's catch of whitefish (715,000 lbs.), and trout (169,500 lbs), is mainly due to over fishing with increased plants while it is clearly shown that the whitefish grounds on Georgian Bay are being gradually depleted. At Squaw Island alone each boat was two tons short of its last year's catch, and the

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catch of many of the fishermen did not pay expenses. At Cockburn Island, with one exception, fishermen were in debt at the close of the season after paying for their twine and help."

"In this division (North Channel) whitefish were never so scarce before, they seemed to have either left those grounds or to have been fished out. In one instance a party who held license for four pound-nets did not realize enough to pay for it. He took up his nets in July and with a number of others went out to fish with gill-nets in Lake Huron."

"The large decrease in pickerel, sturgeon, pike, bass and maskinongé is due to the destruction of illegal trap-nets and seines. I destroyed forty-two of these nets this year. This alone, at one ton each, would cause a decrease in the catch. Seining is now one of the worst evils to contend with, and this season Indians and others were supplied with seines by unscrupulous dealers. At Wikwimikong, between 25 and 30 tons of whitefish were caught by means of seines in four days, and over two thirds of this amount were spoiled, as the men had to bring them 15 miles, and had no ice at this point in which to pack them. Seining for pickerel is also extensively carried on on the north shore of Georgian Bay during the close season. The fish are packed in ice and secreted until after the close-time is over." Many Indians have fished without licenses, a few days at a time with small nets. They are well aware that they are breaking the law and should in all cases be dealt with the same as white men.

"The towing of logs by American firms has been most injurious to the interest of the fishermen, and in some cases they have lost all of their nets, besides injury was done to the feeding and breeding grounds of the whitefish.

"Dealers and firms with United States capital are getting control of our fisheries to the exclusion of our own fishermen."

The Sawdust Act is being strictly enforced in this district, and the close seasons in this division, have been well observed. Fishermen agree that if fishery regulations had been observed more strictly heretofore, they would enjoy better fishing now. The yield of this division is valued at \$255,619., being a decrease of 20 per cent as compared with last year.

GEORGIAN BAY DIVISION.

Capt. A. M. MacGregor of the "Bayfield" and *Capt. E. Dunn* of the "Petrel" both complain of the difficulty there is in securing reliable statistical statements of the fisheries of Georgian Bay and Lake Huron where they were cruising at the end of the season. It was rather late when they began to collect information and many fishermen had left for other employment, hence the statements are not so complete as they might be.

The total catch of the Georgian Bay fisheries employing 18 tugs and 87 boats manned by 356 men using 773,500 fathoms of gill-nets, is only valued at \$344,740, being a decrease of 33 per cent below the yield of 1892. This large diminution is particularly noticeable in whitefish which shows a shortage of 50 per cent.

On this point, *Capt. MacGregor* remarks as follows:

"From personal experience of many years while carrying on the fishing business in this division and close observation the past three seasons, in the fishery protective service, all kinds of fish have materially declined. In *Lake Huron* and south side of Georgian Bay, whitefish and herring have decreased at least 75 per cent, salmon trout 25 per cent, and all other fish in proportion, and in a marked degree all kinds of fish are much smaller in size. This, no doubt, is owing to a reduction in the mesh of gill-nets, and more particularly to the introduction of pound, trap and hoop-nets and to the use of seines: these inshore appliances are very destructive to immature and all kinds of small fish. Many of the fish planted from the hatcheries are destroyed in this way.

Whitefish were formerly very numerous at the Fishing Island; few are now caught in that locality, their principal spawning grounds are the North Channel and the north-east portion of Georgian Bay as far east as Bushby Island.

"Salmon-trout during the spawning season are very plentiful between Cape Hurd and Michel's Bay in Lake Huron, and spawn earlier in the vicinity of Fitzwilliam's Island than in any other place in the lake or Georgian Bay. The other localities they frequent more particularly are the vicinity of Cape Croker, Vail's Point, the shoals of Collingwood, and all the rocky and stony shores of Lake Huron, Georgian Bay and the North Channel.

"Herring principally spawn between Chief's Point and Loyal Island in Lake Huron, at the mouth of French River, Shawinigan Bay, and the bays around Moon River and Mashedash Bay, in the Georgian Bay.

"The formation of the North Channel and Georgian Bay, with their numberless islands, with deep water between, renders this locality peculiarly adapted for the propagation of all kinds of fish. From the manner fishing is now carried on, over fishing, carelessness, or indifference of fishermen with regard to the pollution of the feeding grounds by offal of course fish and by the sinking of bark from saw-logs, fishing will soon not be worth prosecuting, unless some drastic action be taken in the near future."

Capt. MacGregor also states that our fisheries of the great lakes are mostly controlled by foreigners, and indirectly the most of the plant and the price of the fish are regulated by them, to the detriment of the Canadian fishermen.

LAKE HURON (PROPER).

Overseer Chas. Briggs, of Paisloy, who has charge of the coast from Cape Hurd to Southampton, returns a fair catch of salmon-trout, but made no report. The total catch of his district is made up at \$79,460.

Overseer Hugh McFayden who has charge of the four branches of the Saugeen River, reports that trout are not quite so plentiful nor so large in size as formerly. About 20,000 lbs. of that game fish were caught in these streams. There are so many camping parties that it is somewhat difficult to arrive at a definite estimate of their respective catches. Several fishways were swept away last spring, but have all been replaced again.

Overseer H. W. Ball reports an average catch of fish in the waters of his division. Where there was an increase, it is due to a larger number of boats and nets being employed, as was the case at Kincardine and Southampton. Early in the season this overseer notified all fishermen, with respect to the penalty for fishing without licenses. If there was a close season for herring it would lead, almost to the abolition of illegal fishing, as often fishing for herring is used as an excuse when the larger game is the real incentive. As a rule, November fishing does not pay in the majority of cases, illegal fishing is only ventured upon with old nets, which unfortunately may be shifted by storms and allowed to remain in the waters full of decayed fish to contaminate the vicinity.

The total value of this part of the division is reckoned at \$148,900.

Overseer H. B. Quarry reports that fish generally seem plentiful, but owing to rough weather the catch was not so large as it might have been. The augmentation of fish is ascribed to the planting of fry from the hatchery. Mr. Quarry also complains of the neglect of fishermen to give their real catch of fish. The fisheries in his district are valued at \$19,000.

Overseer J. C. Pollock reports fish plentiful, especially in St. Clair River, where the catch was not only better than usual but of a superior quality. This year, there was less traffic on the river owing to low freights, and fishing should have been prosecuted more advantageously. He thinks a larger number will apply for licenses next season. The value of the lake portion of his division is put down at \$11,482, and for St. Clair River at \$8,942.

LAKE ST. CLAIR DIVISION, INCLUDING DETROIT RIVER.

Overseer Joseph Boismier, who has now charge of most of Lake St. Clair, reports a considerable falling off in herring for which he can ascribe no reasonable cause. Pickerel are increasing, and he states that it is a pity to catch them so small, as he

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has found them on markets where they hardly realized 2 cents per lb., while the larger fish brought 7 cents. Large quantities of sturgeon are caught by pound-net fishermen as well as with night-lines. Whitefish fishing showed improvement at Fighting Island as compared with last year. The whole yield of this district is only valued at about \$11,000.

THAMES RIVER.

No net fishing was allowed in that stream this year, but the overseers report quite a few bass captured with the hook and line or trawl.

LAKE ERIE—DIVISION.

(Total Value \$339,019—Decrease \$68,887.)

Overseer D. Girardin reports a very small catch of fish generally, herring especially shows a deficit of 50,000 lbs. as compared with last year, and the decrease of whitefish is as large in proportion. This, however, is attributed more to the stormy weather, experienced towards the end of the season, considerably damaging the nets &c., than to the actual scarcity of fish. The whole catch is valued at \$8,570 against \$14,790 in 1892.

Overseer Everett Wigle who has charge of the coast fronting on the county of Essex made no report, but returns a fair catch of fish valued at \$80,400.

Overseer Hy. Linley says that, notwithstanding the season was late in opening, the spring and summer fishing was very good. The run of herring was remarkably steady until August. Many fishermen did not start fishing till after the close season for pickerel was over. Whitefish seem plentiful, but the quantity taken is short of last year's catch by 30,000 lbs. Strict observance of the close seasons, aided by fry from the hatcheries, will soon result beneficially. Young whitefish and young sturgeon should not be taken. Whitefish and herring spawn about the same time. Several unlicensed nets were seized and the offenders fined; some nets owned by citizens of United States were also confiscated and destroyed. Stormy weather greatly interfered with the fall fishery operations which is probably the cause that the total yield falls short of the previous year, being valued at \$109,500 or \$14,000 of a decrease.

Overseer Wm. Freeland states that the spring fishing season began very favourably, large hauls of herring and pickerel being made, but the mighty blasts of October destroyed or injured the nets to such an extent that repairs were useless. The close seasons were well observed. The catch of this division is reckoned at \$83,530 a decrease of about \$13,000, when compared with the preceding season.

Overseer David Sharp also reports good fishing in the beginning of the season in fact better than the average for the last ten years. A large increase is reported in the catch of sturgeon. The gales in October were the strongest ever experienced, and destroyed more than half of the nets. Nets used for fishing under the ice were destroyed and the owner fined. The total yield is valued at \$31,400, a slight decrease from 1892.

LAKE ONTARIO DIVISION.

(Total Value of catch \$181,690—Decrease \$27,348.)

Overseer Fred Kerr states that herring is the principal kind of fish in this district, and fishermen seem indifferent to other species. There is a slight increase noted at the old fishing stations along the Lake Ontario coast. The cisco herring also gave signs of improvement. At Niagara, herring appeared in abundance but disappeared as suddenly as they appeared; at Beamsville, herring fishing without being large, was steady, giving the fishermen time to dispose of their fish at fair prices without glutting the market. At Burlington beach this industry was also improved, but herring seem to remain in deeper water than usual. In Lake Erie,

this fish did not appear to be more numerous than last year, but great hauls were made especially through the ice. They take the hook readily. This officer thinks that winter fishing should be encouraged as these fish are then in prime condition and meet with ready sale.

Salmon-trout also seemed more plentiful than usual in Lake Ontario especially at Grimsby and Winona, where some splendid specimens were captured, some were caught at Burlington Beach, which is quite a rare occurrence.

Whitefish are either scarce or fishermen care not to seek them, for very few are taken.

The catch of sturgeon was about the same as last year. At the mouth of the Niagara River, this fishing is wholly carried on with lines, all along the river to Queenston where they appear in vast numbers at different periods of the year. This season's fishing there did not seem to be so regular, owing to the waters becoming filthy and polluted by factory rubbish thrown in from the United States side of the river.

Coarse fish are as plentiful as ever, and good catches were affected at many places.

Mr. Kerr is of opinion that seining for coarsefish should not be prohibited, as otherwise these voracious species would rapidly increase to the detriment of the finer grades which are constantly drained by pound nets or gill nets. An abuse seems to exist in catching immense quantities of young fish of the best grades in our bays and rivers which are sold to anglers of Buffalo and Detroit as minnows.

No violations of the fishery laws are reported. The total catch of the Lake Ontario portion of his division is valued at \$34,300, a decrease of 24 per cent as compared with the yield of 1892.

Overseer Wm Sargent states that although ciscoes are steadily declining, more were caught this year than during 1892. Ciscoes seem to be replaced in these waters by a strange species of herring, more like the salt water fish in appearance and probably as good a fish as the ciscoe ever was. Trout are on the increase and those taken were of fine quality, some weighing as high as 20 lbs. The improvement in this kind of fish is attributed to the fry distributed from the hatchery. Bass are also increasing. There is a mill dam on the 16 Mile Creek unprovided with a fish pass, which prevents the fish from ascending. The yield of this division, mostly herring, is reckoned at \$28,000, being \$12,000 less than in 1892.

Overseer Chas. Gilchrist states that fish are not getting scarce either in Lake Ontario part or in Rice Lake. About 60 Indians are engaged fishing for bass and maskinonge. Only eleven permits were issued to foreigners for the privilege of angling in Rice Lake. The total yield amounts to \$17,300, an increase of 80 per cent over last years' which was considered a poor season.

Overseer Nelson Simmons reports angling and trawling on Trent River as better than he has ever seen it before. A party of four, coming from Toronto, caught 1200 lbs., of bass and maskinonge in two days. There is a dam still unprovided with a fish pass. The total value of fish is given at \$13,000.

Overseer Joseph Redmond Jr. reports a fair increase in the catch of salmon-trout and fishermen are in hopes of further improvement next season. The whitefish grounds on the Lake shore yielded much better than the Bay, as the fish were late coming in the latter place. Coarse fish were also plentiful and brought higher prices than formerly. In comparing the catch, it must be borne in mind that there were seventy-five hoop-nets less used in 1893 than in 1892. This officer seized for illegal fishing one seine, one hoop-net and 825 fathoms of gill-nets. The total yield of this district amounts to \$51,000 about the same as in 1891 but a slight decrease from last year.

Overseer W. P. Clarke, in charge of Bay of Quinté, says the catch of whitefish and herring was barely more than half of an average catch. The fish were of a larger size and brought better prices than last year. If the finer grades of fish are on the decline, coarse fish are increasing. Mr. Clark would like to see all nets marked so that the unlicensed ones should be easier detected. The total value is reckoned at \$13,500 a decrease of 50 per cent as compared with the yield of 1891.

Fisheries Report.

Overseer E. H. Sills states that the yield of the fisheries in his district is about the same as last year. The season opened earlier than usual. The close seasons were well observed. Several attempts at poaching were frustrated in time by local guardians. The total value is given at about \$8,000.

Overseer R. R. Finkle also reports a light catch of whitefish and salmon-trout around Amherst Island. Fishermen ascribe this shortage to the fact that these fish have been frequenting the south shore of Lake Ontario, as the catch is much better on the United States side than ours. The whole yield is valued at \$5,250.

Overseer P. Kiel states that the fishery regulations are strictly observed. There is but little fishing carried on around Wolfe Island now, as most of the old fishermen have abandoned their grounds. The catch, consisting chiefly of coarse fish netted on the marshes, is only valued at \$650.

FRONTENAC, LEEDS AND LANARK DIVISION.

Overseer Thos. Merritt states that the fishing industry was not so vigorously prosecuted as it had been for the past two years, owing to the curtailing of licenses for the better protection of game fish. The lower grades of fish have increased considerably, to the detriment of the spawn and fry of the finer species. All infractions of the fishery laws detected were duly punished. There are no fish-ways in this district and none required. The yield did not reach \$2,000 in value.

Overseer N. Acton states that bass was plentiful in his district and if the catch was not larger it is because the number of tourists was smaller than usual.

Overseer Geo. Lake remarks that coarse fish were about as plentiful as during the previous year. The whole catch, about 30,000 pounds, is used for home consumption. Several parties were fined for violation of the close seasons. There is but one fish-way in his district, but he has ordered another at Parham.

Overseer R. A. Gilbert reports that as no netting is allowed in his district, trout is becoming very plentiful. Should this prohibition of nets be continued for a few years longer, these waters will afford most excellent sport to visitors and settlers with hook and line, sufficient to supply all local demands. He estimated the catch of trout at 15,700 lbs. The close season was well observed, though in one instance some hunters, whom he could not locate, attempted to defy the law but lost their nets in consequence.

Overseer H. R. Purcell states that sportsmen reported bass fishing as the best ever known. Trout and pickerel were also plentiful. With the exception of two parties convicted of illegal fishing and who were fined, the regulations were well adhered to. The fry put in some of these lake four years ago, are thriving well, and some good catches of fish were made.

Overseers Hicks, Boddy and Greer return about an average catch of fish for Charleston and Beverly Lakes.

GRENVILLE, DUNDAS, STORMONT AND GLENGARRY DIVISION

Overseers Mooney, Wallace and Poole return a much smaller catch than last year. The fish consisted chiefly of sturgeon, bass, pike and other coarse fish, valued at \$2,726. The number of tourists seems to have been considerably less owing to better attractions in other localities.

PRESCOTT, RUSSELL AND CARLETON DIVISION.

Overseers O. Miron, R. O. Campbell and M. Riddell return about the same quantity of fish as last year, mostly consisting of coarse fish and representing the small value of \$2,165.

RENFREW DIVISION.

Overseers Geo. and M. L. Russell, A. Acheson and W. Yuill, altogether return but 40,800 lbs. of fish, mostly coarse fish, with the exception of 500 lbs of bass. This catch is about the same as in 1892 and is valued at about \$2,000. The fishery laws are generally reported as being well observed.

PARRY SOUND AND MUSKOKA DIVISION.

Overseer Geo. R. Steele remarks that with one exception of with a net which he seized and destroyed without detecting the owner, the regulations were well observed. All the saw mills visited by this officer were faithfully complying with the Act.

Overseer J. G. Rumsey states that now, he counts upon the good will of the settlers, the fishery regulations are better observed, the practice of illegal netting and spearing is about stamped out. The fish-way built at Burk's Falls is working satisfactorily, and large catches of speckled trout are reported from the Maganettawan River. Saw-mills throughout this district are all provided with burners, hence there will be no more trouble from rubbish. Mr. Rumsey received complaints that the Muskoka River was being polluted by refuse from a large tannery, but upon investigation, he found the matter rested more with health officers than fishery overseers

LAKES SIMCOE AND COUCHICHING DIVISION.

Overseers L. S. Sanders and E. H. Cameron state that net fishing is not allowed, the lake having been set apart for the natural propagation of fish; however, angling for bass was much better than for the last few years. Herring were plentiful during spring and summer, but in the fall very few were caught.

Overseer Wm. McDermott states that the fishery laws were generally well observed in the inland waters of the county of Simcoe. It is true several complaints reached him, but with a single exception, there was not sufficient evidence to warrant a conviction. The presence of a couple of Dominion Police as special guardians sent to patrol the Holland River during the close time had a salutary effect, and he would not object to a repetition as this is the portion of his district where most illegal fishing is indulged in. Bass, pickerel and pike seem to be steadily increasing in these waters, but the same cannot be said of speckled-trout. The fish-ways in this district are all in good order, quite a number of the old structures have been replaced by new ones during the summer. The total yield is estimated at about \$8,500.

LAKE SCUGOG.

Overseer John Martin reports a catch of 200,000 lbs. of maskinonge and 150,000 lbs. of bass, besides coarse fish, in all representing a value of \$24,750. There were more people fishing than formerly, and fishing through the ice for bass or maskinonge gave some of them occasion to attempt snaring, but he has not been able to detect any.

PETERBOROUGH DIVISION.

Overseer Geo. W. Fitzgerald returns the yield of maskinonge at 50,000 lbs and bass at 160,000 lbs, in the inland waters under his charge. He remarks that these fish were more plentiful than during the previous year. Several parties were prosecuted for spearing and snaring fish and were duly fined: snaring is very difficult to detect. All the local guardians attended to their duties faithfully. The sawmill owners have kept the refuse of their mills fairly well out of the streams, only one infraction of this regulation being dealt with. Stony and other lakes contain a kind

Fisheries Report.

of land locked salmon which will hardly take the fly and Mr. Fitzgerald would not object to allow *bona fide* residents to fish for them with nets during a short period of the fall. There are several dams still unprovided with fish-passes. Over a hundred foreign tourists visit these waters every summer.

WELLINGTON AND NEIGHBOURING COUNTIES.

Overseer Joseph Graham states that fish were about as plentiful as last year. Fishing for coarse fish through the ice where trout are to be found is very tempting and may be easily abused. There are several dams on Credit River unprovided with fishways.

Overseer David Coleman has charge of the waters of the County of Cardwell consisting of ponds and small streams, the principal of which are the Nottawasaga and Credit. These waters having a gravel bottom are admirably adapted for the spawning of speckled trout, which is extensively carried on here by private enterprise. One firm alone have already deposited one-quarter of a million fry in their waters and have made arrangements for an additional 150,000 to be placed this coming spring. There are two private Brook-trout hatcheries in this district supplying fry at reasonable prices. The greatest enemies of the trout are suckers and poachers during the close-time. The territory is so extensive that it is almost impossible for one party to do it justice without assistants.

ONT

RETURN of the Number and Value of Vessels, Boats and Fishing Material, and Number Ontario, for

Number.	NAME OF DISTRICT.	VESSELS, TUGS AND BOATS EMPLOYED.						FISHING MATERIALS.				
		Vessels or Tugs.				Boats.		Gill Nets.		Pound Nets.		
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.
	Lake of the Woods.	1	25	1200	4	21	700	41	14110	2640	2	350
	<i>Lake Superior.</i>											
1	From Pigeon River to Otter Head	7	180	14700	30	29	2900	60	27000	5000	32	4700
2	Richardson Harbour					5	1000	13	11250	2700	2	1000
3	Pilot Harbour	1	60	5000	10	4	800	9	20000	4800		
4	Michipicoten Island					3	600	6	16770	3000		
5	Caribou Island					3	600	6	16770	3000		
6	Lizard Island					8	1600	22	17500	3500		
7	Point Mamainse					2	400	4	4500	1080		
8	Batchewana Bay	1	27	3000	6	1	100	2			5	2500
9	Goulais Bay					1	100	3			3	1500
10	Indians Reserve					5	500	10				
	Totals	9	267	22700	46	61	8600	135	113790	23080	42	9700
	Value \$											

Fisheries Report.

ARIO.

Men employed, &c., with the Kinds and Quantities of Fish in the Province of the Year 1893.

KINDS OF FISH.										VALUE.	Number.
Whitefish, brls.	Whitefish, lbs.	Trout, lbs.	Trout, brls.	Herring, fresh.	Sturgeon, lbs.	Pickarel, lbs.	Pike, lbs.	Coarse, fish.	Home Consumption, lbs.		
265	309300	9750	.....	.....	8830	19620	9100	.....	10640	\$ cts. 30,674 00	
290	575000	310400	815	30000	20500	35000	.....	40000	50000	94,670 00	1
	10200	13000								2,116 00	2
	64000	124000								17,520 00	3
		160000								16,000 00	4
		190000								19,000 00	5
	102200	106400								18,816 00	6
	38500	28000								5,720 00	7
	24300	18000			13400	15000	450			5,320 50	8
	21000	8600			1500	1600	300			2,725 00	9
	7500	7500								1,350 00	10
290	840700	965900	815	30000	35400	51600	750	40000	50000	.....
2900	67256	96590	8150	900	2124	2580	37	1200	1500	183,237 50	

RETURN of the Number, Tonnage and Value of Vessels, Boats and

Number.	NAME OF DISTRICT.	VESSELS, TUGS AND BOATS EMPLOYED.						FISHING		
		Vessels or Tugs.				Boats.			Gill Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.
	LAKE HURON.			¢		¢			¢	
	<i>North Channel, Manitoulin Island and Vicinity.</i>									
1	St. Joseph's Island.....				1	200	2	3750	300	
2	Kashkawong Point.....				2	400	4			
3	Tenby Bay.....				2	300	5			
4	McBeth's Bay.....				1	200	2	2400	200	
5	Thessalon.....				3	500	6	6750	560	
6	Hennepin Island.....				2	150	4			
7	Grand Batture.....				1	200	2			
8	Blind River.....				1	200	2	5625	500	
9	Algoma Mills.....	1	15	1800	5	1	150	3	12500	2000
10	Cook's Mills.....				2	400	4	7500	720	
11	Newport.....	1	20	2000	3	2	400	4		
12	Cullis Light.....				2	300	5	8800	700	
13	Grant Islands.....				4	600	10	8700	700	
14	Cape Roberts.....				2	300	6			
15	Duck Islands.....	3	75	10000	18	10	1500	26	77500	6200
16	Gore Bay.....	2	90	3000	12				12500	1000
17	Little Current.....				1	300	3	6000	800	
18	South Bay.....	2	34	6000	12	8	1550	19		
19	Killarney.....				53	10600	108			
20	Squaw Island.....	3	45	6000	15	30	6000	60	149300	19200
21	Bustard Island.....	2	30	3500	10	20	3000	40	160000	16000
22	Cockburn Island.....	2	25	3000	7	26	3900	50	93750	15000
	Total.....	16	334	35300	82	174	31150	365	495075	63880
	Value.....			¢						

Fisheries Report.

Fishing Material, &c., in the Province of Ontario, &c.—Continued.

MATERIALS.		KINDS OF FISH.								VALUE.		Number.
Pound Nets.		Whitefish, brls.	Whitefish, lbs.	Trout, lbs.	Sturgeon, lbs.	Bass, lbs.	Pickereel, lbs.	Pike, lbs.	Coarse fish, lbs.			
No.	Value.									\$	cts.	
4	2000	25	80000	1000					600	6,518	00	1
3	1500	50	41000	10000	1000		5000	3500	8000	5,255	00	2
2	1000		80000	10000			20000	20000	5000	10,050	00	3
4	2000		24100	12300	520		1120	100		3,250	20	4
4	2000		54430	24320	540		16310	3200	200	7,800	30	5
4	2000		20000	6000	20000	100	6000		300	3,715	00	6
3	1500		15000	4500	15000	75	4570		350	2,793	50	7
			70000	30000				200	40500	9,825	00	8
3	900		20000	40000	2000		2000		300	5,829	00	9
			15060	14570			140			2,668	80	10
3	1300		14000	18000	29300		36000		200	6,484	00	11
			2530	12500						1,452	40	12
4	1600		18540	10890	13400		5000			3,626	20	13
7	2100		27240	7930	4730		9630			3,737	50	14
5	1500		24170	457570						47,690	60	15
7	3500		37330	13680	5120		3330			4,828	10	16
			14000	2000					5000	1,470	00	17
10	2800		123200	40000	5522	1000	1000			14,297	32	18
			429260	50050	5000	360		13550	3010	40,435	20	19
			559600							44,768	00	20
			340000		300		4600	1010		27,498	50	21
			20340							1,627	20	22
60	23700	75	2029800	765310	102432	1535	114700	41560	63460			
		750	162,384	76,531	6,145	92	5,735	2,078	1,904	255,619	82	

RETURN of the Number, Tonnage and Value of Vessels, Boats and

Number.	NAME OF DISTRICT.	VESSELS, TUGS AND BOATS EMPLOYED.						FISHING MATERIALS.						
		Vessels and Tugs.				Boats.			Gill Nets.		Seines.		Pound Nets.	
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Fathoms.	Value.	Number.	Value.
				\$			\$			\$		\$		\$
<i>Georgian Bay Division.</i>														
1	Byng Inlet	1	20	2500	5				16000	2000				
2	Point au Baril	1	25	3000	5				20000	2200				
3	Mink Island					12	2400	25	40000	4400				
4	Copperhead Island.					3	600	9	9000	800				
5	Umbrella do					4	800	10	10000	900				
6	Collingwood	5	72	10000	32	46	6900	138	297000	51800				
7	Meaford	2	24	3700	9	7	830	15	64500	7400				
8	Owen Sound	1	13	2000	6	8	420	17	37000	3200				
9	Warton	8	115	24000	52				180000	20000				
10	Tobermoray					4	800	15	60000	6000				
11	Horse and Club Islands					3	600	18	30000	4000				
	Totals	18	272	45200	109	87	13350	247	773500	102700				
<i>Lake Huron Division.</i>														
1	From Cape Hurd to Southampton.					14	2500	40	22000	1500				
2	Saugeen River					13	1800	40	72000	12400				
3	Southampton	3	70	7000	18	4	700	12	12000	2400				
4	Kincardine					7	1000	20	66000	10100				
5	Goderich and Port Albert	3	84	9000	18	9	500	24						
6	Bayfield, Grand Bend and Blue Point	1	30	6000	4	21	610	36						
7	From Blue Pt. to Pt. Edward										1290	2130	24 2270	
	Totals	7	184	22000	40	68	7110	172	172000	26400	1290	2130	28 3270	
	Totals for Georgian Bay	18	272	45200	109	87	13350	247	773500	102700				
	do North Channel	16	334	35300	82	174	31150	365	495075	63880			60 23700	
	Grand totals for the whole of Lake Huron	41	790	102500	231	329	51610	784	1440575	192980	1290	2130	88 26970	
	Value			\$										

Fisheries Report.

Fishing Material, &c., in the Province of Ontario, &c.—Continued.

KINDS OF FISH.											VALUE.	Number.		
Whitefish, lbs.	Whitefish, brls.	Trout, lbs.	Herring, brls.	Herring, fresh, lbs.	Sturgeon, lbs.	Maskinonge, lbs.	Bass, lbs.	Pickereel, lbs.	Pike, lbs.	Coarse fish, lbs.			Home consumption, lbs.	\$	cts.
26000		72200								23000		9,990	00	1
45000		93400								72600		15,118	00	2
104800		223500								56800		32,498	00	3
12300		14600								188000		8,084	00	4
21000		34000								1600		5,128	00	5
1662000		464000		4400	464000	2000	5000	182000	36000	12000		179,012	00	6
117000		174000						14000				27,460	00	7
21000		121500		4500								13,965	00	8
75100		320000								42100		39,271	00	9
16800		128700										14,214	00	10
1601000		1645900		8900	464000	2000	5000	196000	36000	398100		344,740	00	11
105000		620000	2000				1000					79,460	00	1
		20000										2,000	00	2
38000		586000	300	10000			6000	10000	600	30000	120000	68,680	00	3
5000		106000	280	8000			1500	2000	200	20000	52000	14,860	00	4
40000		530000		24000	3000		14000	7000	400	60000	178000	65,450	00	5
38000		89600		18740	60500		300	41730		18100	6500	19,034	70	6
		15400	200	57200	67520			63680	1800			11,482	10	7
226000		1967000	2780	117970	131020		22800	124410	3000	128100	356500	260,966	80	
1601000		1645900		8900	464000	2000	5000	196000	36000	398100		344,740	00	
2029800	75	765310			102432		1535	114700	41560	63460		255,619	82	
3856800	75	4378210	2780	126870	697452	2000	29335	435110	80560	589660	356500			
308544	750	437821	12510	3806	41847	120	1760	21555	4028	17690	10695	861,326	62	

RETURN of the Number, Tonnage and Value of Vessels, Boats and

Number.	NAME OF DISTRICT.	VESSELS, TUGS AND BOATS EMPLOYED.						FISHING MATERIALS.			
		Vessels or Tugs.				Boats.		Gill Nets.		Seines.	
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Fathoms.	Value.
	<i>Lake St. Clair Division, including Detroit River.</i>			¢		¢			¢		¢
1	St. Clair River.....				15	250	25			370	775
2	St. Clair Lake.....				26	995	65			2850	2026
3	*Thames River.....										
4	Detroit River, including Bois Blanc and Fighting Island.....				10	455	53			1800	1100
	Totals.....				51	1700	143			5020	3901
	Value..... \$										
	<i>Lake Erie Division.</i>										
1	Pelee Island.....				11	1090	25				
2	Coast fronting on Co. of Essex.....	2	106	11500	11	56	4610	80			
3	Coast fronting on Co. of Kent.....	1	198	18000	10	44	3800	61	860	180	750
	Coast fronting on Co. of Elgin—										
4	New Glasgow.....				5	495	12	300	100		
5	Eagle.....				5	650	9				
6	Tyrconnel.....				1	60	3				
7	Port Stanley.....	2	22	7000	11	10	1175	17			
8	Port Bruce.....	2	20	4700	6	5	800	9		300	200
9	Port Burwell.....	3	23	6000	8	5	400	13	1000	300	
10	Houghton to Rainham.....	4	30	6000	6	48	3000	124	8000	1200	4490
11	Long Point Island.....	2	40	4000	8	15	1500	28		1455	700
12	Cayuga to Moulton Bay.....	3	30	850	8	2	25	7	5050	2600	100
13	Grand River.....				17	195	19			190	345
14	Low Banks.....				7	175	16	400	100	500	350
15	Port Colburne.....				5	125	5	500	125		
16	Ridgeway to Fort Erie.....	1		3000	3	13	615	20	5150	700	650
	Totals.....	20	469	61050	71	249	18715	448	21260	5305	8435
	Value..... \$										

* Angling with hooks and lines.

Fisheries Report.

Fishing Material, &c., in the Province of Ontario, &c.—Continued.

Pound Net.		KINDS OF FISH.									VALUE.		Number.
		Whitefish, lbs.	Herring, fresh, lbs.	Eels, lbs.	Sturgeon, lbs.	Maskinonge, lbs.	Bas, lbs.	Pickarel, lbs.	Pike lbs.	Coarse fish, lbs.			
Number.	Value.										\$	cts.	
3	750	500	18000	400	7900	12000	132890	2150	15200	8,942	00		1
					45500	1000	30700	8050	64100	7,452	50		2
						15000		3200	10000	1,360	00		3
		25000			150	220	1800	420	46500	3,528	20		4
3	750	25500	18400		53550	1000	39720	165390	13820	135800			
		2040	552		3213	60	2383	8269	691	4074	21,282	70	
28	5800	11900	113200		21850	9750	19500		45000	8,569	00		1
42	24080	85460	1101800		127800	21320	72950	278830	466000	80,407	00		2
42	17440	45260	2784104		52070	2000	163000	93000	211200	109,524	12		3
9	3300	12600	281000		18000	300	74900	6400		14,601	00		4
8	2400	4500	300000		6900		27500		3700	11,260	00		5
2	300	800	30000		600		4000		1100	1,233	00		6
17	6650	28300	590000		18500		200000		11200	31,410	00		7
10	4000	8410	90170		10400	300	145520	800	29200	12,211	90		8
9	2700	10400	82820		11700	166	151850	3730	33680	12,817	96		9
23	5900	31250	410540		48560	600	6000	182040	18520	31,426	80		10
9	2700	6760	113900		20860	1580	12340	42500	21745	12,556	85		11
		1800	85000		1600	1400	29800	800	16000	4,884	00		12
	†				1300	800	3025	8600	5000	47150	2,402	00	13
		6900	17000	1000	400		3000	715	1200	10300	1,730	75	14
			4200		350			1700		6000	412	00	15
3	2000	1900	39300		15800			6000	2000	29800	3,573	00	16
202	76970	256240	6043034	1000	356690	2980	59601	1130575	432025	1120430			
		20499	181292	60	21401	179	3576	56529	21601	33883	339,019	38	

† And angling.

RETURN of the Number and Value of Vessels, Boats and

Number.	NAME OF DISTRICT.	VESSELS, TUGS AND BOATS EMPLOYED.						FISHING MATERIALS.								
		Vessels or Tugs.			Boats.			Gill Nets.		Seines.		Pound Nets.	Hoop Nets.			
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Fathoms.	Value.	Number.	Value.	Number.	Value.
	<i>Lake Ontario Division, including Niagara River and other tributaries.</i>			\$		\$			\$		\$	\$	\$		\$	
1	Queenstown					4	222	5						*3	630	
2	Niagara					7	585	14	7100	1350						
3	Beamsville					9	770	19	8800	925	150	100				
4	Port Dalhousie	1	8	1200	3	6	525	10	7000	1450	150	100				
5	Burlington Beach					16	1415	27	16500	2020	550	350				
6	Angling or trolling in the above districts															
7	Bronte					15	2100	45	44800	4600						
8	Mimico to Port Union					9	600	16	5800	900	450	300				
9	Pickering Harbour					6	340	11	1800	625						
10	Bowmanville					2	20	2			100	80				
11	Cobourg					4	220	8	2750	175	50	40				
12	Lake Port					1	100	2	1000	200						
13	Brighton					12	950	19	9250	345	200	300				
14	Rice Lake								About 60 Indians trolling							
15	Trent River								Angling and trolling.							
	<i>Prince Edward County.</i>															
16	Wellington Beach	4	175	9000	20	75	2000	200	7000	1300	700	1300			14	280
	Weller's Beach															
	Smith's Bay															
17	Bay of Quinté					52	1300	143	3650	465	2700	1670			67	1415
18	Lake coast fronting on Lennox					27	424	42	2860	510	200	150			38	960
19	Amherst Island					23	350	25	6325	675						
20	Wolfe Island					11	360	17	1675	200					10	165
	Totals	5	183	10200	23	279	10281	665	126310	15740	5250	4390	3	630	151	3320
	Value, \$															

*Machines.

Fisheries Report.

Fishing Material, &c., in the Province of Ontario, &c.—Continued.

KINDS OF FISH.											VALUE.		Number.
Whitefish, lbs.	Trout, lbs.	Herring, brls.	Herring, fresh, lbs.	Eels, lbs.	Sturgeon, lbs.	Maskinongé, lbs.	Bass, lbs.	Pickarel, lbs.	Pike, lbs.	Coarse fish, lbs.	\$	cts.	
			40800	200	600		1400	1430		2500	1,502	50	1
600	300		92700	50	26100		1400	71430		20500	8,698	50	2
500	14000		14300		800					17500	2,442	00	3
300			126000	1000	1200		1200	6200	800	13900	4,775	00	4
1000	4000		193000	250					2700	3700	6,531	00	5
							60000	65000	70000		10,350	00	6
200	4000		898000	300			700		1000	18000	28,006	00	7
9500	2000		204600	350			100		310	106800	10,344	50	8
			2300							2000	69	00	9
											60	00	10
			15000								1,012	00	11
400	5300										416	00	12
200	4000										5,514	40	13
930	16100		3000	7000					37600	48000	10,320	00	14
	3000			10000	2000	72000	100000	35000	40000	50000	13,170	00	15
240000	180000		120000	40000	4000	3000		41000	80000	50000	51,170	00	16
36840		160	35600	5130	930	1165	3075	18900	40340	172150	13,479	70	17
34000			20000	8800				21700	20800	65000	7,923	00	18
45000	10000				1000		4500	4500	2000		5,255	00	19
100	20		300	2700	150		200	200	3700	8500	652	00	20
369570	242720	160	1765600	75780	36780	196165	227575	265360	299250	578550			
29566	24272	720	52968	4547	2207	8170	13654	13268	14962	17356	181,690	60	

RETURN of the Number and Value of Vessels, Boats and

Number.	NAME OF DISTRICT.	VESSELS, TUGS AND BOATS, EMPLOYED.						FISHING MATERIALS.				
		Vessels or Tugs.			Boats.			Gill Nets.		Hoop Nets.		
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	No.	Value.
				¢			¢			¢		¢
	<i>Frontenac, Leeds and Lanark.</i>											
1	Howe Island				4	50	4	1,100	105	4	85	
2	Kingston, Storrington and Pittsburg.....				10	250	16	1,581	230	13	130	
3	Gananoque.....						3			3	30	
4	Frontenac County.....											
5	Leeds and Lanark, including Charleston and Beverly Lakes				8	140	15			29	590	
	Totals				22	440	38	2,681	335	49	835	
1	<i>St. Lawrence River, fronting on the counties of Grenville, Dundas, Stormont and Glengary</i>											
2	<i>Ottawa River, fronting on counties of Prescott, Russell and Carleton.....</i>											
3	<i>Ottawa River, fronting on the county of Renfrew</i>											
4	<i>Lake Nipissing Division.....</i>											
5	<i>Parry Sound and Muskoka Divisions</i>											
6	<i>Lake Simcoe Division</i>											
7	<i>Lake and River Scugog.....</i>											
8	<i>Hastings, Peterboro' and Victoria counties, including part of Otonabee River</i>											
9	<i>Wellington and neighbouring counties, including Credit River.....</i>											

* Estimated.

Fisheries Report.

Fishing Material, &c., in the Province of Ontario, &c.—Continued.

KINDS OF FISH.											VALUE.	Number.
Whitefish, lbs.	Trout, lbs.	Herring, fresh, lbs.	Eels, lbs.	Sturgeon, lbs.	Maskinongé, lbs.	Bass, lbs.	Pickarel, lbs.	Pike, lbs.	Coarse Fish, lbs.	\$ cts.		
.....	.....	.....	2,000	.....	1,400	.....	.....	4,260	4,200	543 00	1
.....	.....	.....	.....	.....	.....	.....	.....	12,500	44,200	1,951 00	2
3,000	23,200	10,000	1,000	2,500	1,000	3,000	1,000	3,500	18,000	1,215 00	3	
.....	.....	.....	1,000	.....	.....	21,400	3,700	4,800	4,400	4,761 00	4
2,200	3,500	.....	1,700	.....	.....	15,800	.....	9,500	57,000	3,761 00	5
5,200	26,700	10,000	5,700	2,500	2,400	40,200	4,700	34,560	127,800	12,231 00	.....
.....	.....	.....	2,500	16,700	1,350	9,300	700	10,500	12,500	2,726 00	1
.....	.....	.....	1,540	475	2,600	4,500	4,700	9,550	30,200	2,165 40	2
.....	600	200	2,000	4,200	1,900	5,000	4,200	11,200	11,450	1,965 50	3	
.....	.....	.....	.....	.....	5,000	2,500	.....	12,000	.....	*1,050 00	4
3,500	28,000	.....	.....	.....	3,600	15,550	20,600	5,500	39,000	6,704 00	5
.....	20,000	.....	.....	25,000	.....	35,000	7,000	40,000	20,000	8,550 00	6
.....	.....	.....	2,500	.....	200,000	150,000	.....	.....	120,000	24,750 00	7
200	15,800	500	5,100	.....	94,000	115,200	.....	.....	68,300	16,518 00	8
.....	7,000	.....	500	.....	.....	1,000	.....	.....	9,000	1,060 00	9

RECAPITULATION of the Number and Value of Tugs, Boats and Fishing Material, and Number of Men employed, &c., with the Kinds and Quantities of Fish in the Province of Ontario, for the Year 1893.

Number.	NAME OF STATION.	VESSELS, TUGS AND BOATS EMPLOYED.						FISHING MATERIAL.									
		Vessels or Tugs.			Boats.			Gill Nets.		Seines.		Pound Nets.		Hoop Nets.			
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	Fathoms.	Value.	Fathoms.	Value.	No.	Value.	No.	Value.	
1	Lake of the Woods	25	1200	\$	4	21	700	41	14110	2640			2	350		1	
2	Lake Superior	267	22700		46	61	8600	135	113790	23080			42	9700		2	
3	Lake Huron, including Georgian Bay	790	102500		231	320	51610	784	1440575	192980			88	26370		3	
4	Lake St. Clair					51	1700	143					3	750		4	
5	Lake Erie	469	61050		71	249	18715	448	21260	5305			202	76870		5	
6	Lake Ontario	183	10200		23	279	10281	665	126310	16740			3	650		6	
7	Frontenac, Leeds and Lenark counties					22	440	38		335						7	
8	Grenville, Dundas and Stormont counties															8	
9	Prescott, Russell and Carleton do															9	
10	Renfrew county															10	
11	Lake Nipissing															11	
12	Parry Sound and Muskoka															12	
13	Lake Simcoe Division															13	
14	Lake and River Scugog															14	
15	Hastings, Peterborough and Victoria counties															15	
16	Wellington and neighbouring counties															16	
	Totals	76	1734	197650	375	1012	92046	2254	1718726	240080	19996	14641	340	115870	200	4155	

RECAPITULATION

Of the Yield and Value of the Fisheries of the Province of Ontario, for the year 1893.

Kinds of Fish.	Quantity.	Prices.		Value.	
		\$	cts.	\$	cts.
Whitefish.....	Brls. 630	10	00	6,300	00
".....	Lbs. 5,667,010	0	08	453,360	80
Trout.....	Brls. 815	10	00	8,150	00
".....	Lbs. 5,604,680	0	10	569,468	00
Herring.....	Brls. 2,940	4	50	13,230	00
".....	Lbs. 7,994,604	0	03	239,838	12
Eels.....	" 96,620	0	06	5,797	20
Sturgeon.....	" 1,237,577	0	06	74,254	62
Maskinongé.....	" 432,995	0	06	27,179	70
Bass.....	" 734,481	0	06	44,068	86
Pickereel.....	" 2,109,555	0	05	105,477	75
Pike.....	" 958,815	0	05	47,940	75
Coarse fish.....	" 2,911,690	0	03	87,350	70
Home consumption.....	" 417,140	0	03	12,514	20
Total for 1893.....				1,694,930	70
" 1892.....				2,042,198	53
Decrease.....				347,267	83

STATEMENT

Showing the Number of Vessels, Tugs, Boats, &c., in Ontario, for the year 1893.

76 tugs or vessels (tonnage 1,734).....	\$ 197,650	cts. 00
1,012 boats.....	92,046	00
1,718,726 fathoms of gill net.....	240,080	00
19,995 " seines.....	14,641	00
340 pound nets.....	115,370	00
200 hoop nets.....	4,155	00
Total value.....	663,942	00

Number of men employed in the Fisheries of Ontario, 1893:—

In tugs or vessels.....	375
boats.....	2,254
Total.....	<u>2,629</u>

Fisheries Report.

APPENDIX No. 13.

FISH BREEDING.

REPORT OF MR. SAMUEL WILMOT, SUPERINTENDENT GENERAL OF FISH CULTURE FOR THE DOMINION OF CANADA, FOR THE YEAR 1893.

The Honourable SIR CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

A full statement of all particulars relating to the operations at the several fish hatcheries in the Dominion of Canada will be embodied in this report, together with details of the work performed at the several individual fish hatcheries, now fifteen in number, located at various points in the several provinces, from the Atlantic to the Pacific Ocean.

The information submitted in this report, supplemented by the individual reports from the several officers in charge of the hatcheries, will enable the Department of Marine and Fisheries, and the public generally to form a proper estimate as to the quantities of young fish of various kinds which were turned out of each hatchery during the spring and summer of the past year.

GROSS OUT-PUT OF FRY, 1893.

The number and species of fry, bred, and distributed amounts to nearly double that of the preceding year of 1892 which all told was (134,908,000) one hundred and thirty-four million, nine hundred and eight thousand, whilst, for the present year of 1893, there were (258,314,000) two hundred and fifty-eight million three hundred and fourteen thousand fry, of the most valuable commercial fishes of the country, successfully planted in many of the rivers and lakes in the Atlantic provinces, and in British Columbia, and also in the great inland lakes of Ontario.

NEW HATCHERY IN MANITOBA.

During the past year a new hatchery was erected at Selkirk, on the Red River, in Manitoba, which is intended more particularly for the propagation of the famous whitefish of Lake Winnipeg. The interior arrangements are such, however, as to be adapted for the breeding of salmon trout, and such other fishes as may be required for the waters of Manitoba and the North-west Territories.

The building is a very extensive and commodious one, probably the largest fish hatchery yet built in the Dominion :—The machinery and apparatus are driven by steam, with a powerful pump which draws the supply of water from the Red River, and propels it through the numerous automatic glass incubators, and hatching troughs placed throughout the hatching room.

This nursery was only completed just in time to receive its first supply of White fish eggs in November last: the particulars connected with the starting of this hatchery, were somewhat difficult to overcome, yet the quantity of eggs collected and placed in the building amounted to upwards of (21,000,000) twenty-one millions. From latest accounts these eggs were progressing satisfactorily, and every

reliance may be placed upon having a large yield of young fish from them next spring. And on this account no exhibit of fry can be given from the Selkirk nursery until 1894.

The general progress of the work done, and the gross out-put of fry from the several fish hatcheries in the Dominion during the past season are of a very satisfactory character, as will be shown by the accompanying schedules, showing a grand total of 258,314,000 young fish, which were bred, and distributed in the waters of Canada, during 1893.

MORE HATCHERIES WANTED.

The generally reported decline in the fisheries, more especially in the great Lake regions of the interior, brought about by excessive fishing to meet the increasing demands for fish food for the Canadian, and American markets, would appear to call forth additional means for re-stocking and maintaining these fisheries; and the impression prevails almost universally, that the artificial methods of propagation will materially aid in bringing about this desirable improvement. The numerous applications also which have been received from public corporations and individuals for additional hatcheries to be built at various points, all run in the same line as evidences of the popular feeling which exists for increasing the present number of fish cultural institutions throughout the country, from which the annual out-put of young fish might be largely augmented, and at the same time give increased impetus to the fishing industries of the country, which render many advantages alike to the fisherman, and the public generally.

REPORTS AND OPINIONS OF OVERSEERS.

Overseer Williston says—

“The season just passed has been one bearing a bountiful harvest for the fishermen, salmon were unusually plentiful, and I ascribe the great increase to special guardians on the spawning grounds. The salmon were unusually plentiful in Bay du Vin and Black River.”

Overseer Pat Hogan says—

A large catch of salmon, which is the principal fishery in his district. Believes the great increase of salmon due to present mode of protection, &c., &c.

Overseer Abbott says—

“The largest catch of salmon for at least twenty years.”

Overseer Richards says—

“Fishing in this district fair—salmon exceedingly abundant.”

NEW BRUNSWICK.

Overseer Verge says, “The weather during the month of June being extremely warm and dry, kept salmon in the deep water and later on they reached the rivers in much greater numbers than in preceding years.”

Overseer Hickson says, “Salmon fishing all along the coast this season was better than for many years before. The anglers report good sport on the river this season * * * There were more salmon on the Nipissiguit this fall than for a good many years.”

Overseer Theriault says, “Salmon a good increase over last year.”

Overseer Robichaud says, “Salmon has exceeded the record for past twenty years.”

Overseer Goodwin says, “A larger increase in take of salmon by shad fishermen which he believes is partly attributable to fry placed in north lakes at head of Sackville River some years ago and strongly urges that more fry be put there next and succeeding years—believes that Tignish and Port Elgin rivers should be stocked.”

Fisheries Report.

SCHEDULE SHOWING DISTRIBUTION OF FRY.

The following table will show the out-put of fry of the various species during 1893.

Atlantic Salmon (<i>Salmo Salar</i>)	5,513,000
Pacific Salmon Sockeyes (<i>Naka</i>).....	5,764,000
Salmon Trout, Great Lakes, (<i>Naymacush</i>).....	6,652,000
Speckled Trout, of the streams, (<i>Fontinalis</i>).....	425,000
Whitefish, Great Lakes, (<i>Coregoni</i>).....	86,360,000
Lobster (<i>Homarus</i>).....	153,600,000
Grand total, 1893.....	258,314,000

The following schedule will show in separate columns the number and name of each hatchery; the quantities of fry, and semi-hatched eggs put out from the respective hatchery with a description, also of the species so put out during the season of 1893.

THE particular distribution of Fry from the several Hatcheries, in 1893, is shown in the following table.

No.	Name of Hatchery.	Number of Fry turned out.	Number of Semi-hatched eggs given to other Hatcheries.	Description of Fish.
1	Fraser River, B.C.....	5,674,000		Sockeye salmon.
2	Sydney, N.S.....	Not working in 1893.		
3	Bedford, N.S.....	320,000		Atlantic salmon.
	do	160,000		Salmon trout.
	do	2,700,000		Whitefish.
4	Dunk River, P.E.I.....	Destroyed by fire.		
5	St. John River, N.B.....	365,000		Atlantic salmon.
	do	2,600,000		Whitefish.
	do	294,000		Salmon trout.
	do	40,000		Speckled trout.
6	Miramichi, N.B.....	975,000	300,000	Atlantic salmon.
7	Restigouche, P.Q.....	883,000	200,000	do
8	Gaspé, P.Q.....	910,000		do
9	Tadoussac, P.Q.....	2,060,000		do
10	Magog, P.Q.....	1,200,000		Salmon trout.
	do	2,400,000		Whitefish.
11	Nescastle, Ont.....	2,800,000		do
	do	385,000	45,000	Speckled trout.
	do	4,150,000	3,600,000	Salmon trout.
	do	2,500,000		Whitefish.
12	Sandwich, Ont.....	68,000,000	17,000,000	do
13	Ottawa, Ont.....	848,000		Salmon trout.
	do	5,360,000		Whitefish.
14	Bay View, N.S.....	153,600,000		Lobsters.
15	Selkirk, Man.....	1st year—no fry till 1894.		
	Totals.....	258,314,000	21,145,000	

STATEMENT showing the Places where, and the Years in which, the several Fish Hatcheries have been erected; also the number of Fry distributed from each Establishment, annually, since they were built, including the year 1893.

YEAR.	ONTARIO.			QUEBEC.			NEW BRUNSWICK.			NOVA SCOTIA.			P. E. ISLAND.	BRITISH COLUMBIA.	TOTALS.
	New-castle.	Sandwich.	Ottawa.	Magog.	Tadoussac.	Gaspé.	Restigouche.	Miramichi.	St. John River.	Bedford.	Sydney.	Bay View Lobster Hatchery*				Dunk River.	Fraser River.
1868-73	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.
1874	1,070,000	.....	.....	.....	100,000	.....	60,000	60,000	.....	.....	.....	.....	.....	.....	1,070,000
1875	350,000	.....	.....	.....	600,000	.....	110,000	600,000	.....	.....	.....	.....	.....	.....	1,570,000
1876	650,000	.....	.....	.....	150,000	.....	50,000	300,000	.....	.....	.....	.....	.....	.....	9,655,000
1877	700,000	8,000,000	.....	.....	1,051,000	.....	60,000	320,000	.....	.....	.....	.....	.....	.....	13,451,000
1878	2,900,000	8,000,000	.....	.....	1,707,000	.....	650,000	1,015,000	.....	.....	.....	.....	.....	.....	27,042,000
1879	2,692,700	20,000,000	.....	.....	1,870,000	.....	1,250,000	1,470,000	.....	.....	.....	.....	.....	.....	21,684,100
1880	1,923,000	12,000,000	.....	.....	1,155,000	.....	730,000	1,500,000	.....	.....	.....	.....	.....	.....	21,013,700
1881	3,300,000	16,000,000	.....	.....	334,000	.....	500,000	740,010	.....	.....	.....	.....	.....	.....	22,949,000
1882	4,841,000	44,000,000	.....	.....	660,000	.....	530,000	1,400,000	.....	.....	.....	.....	.....	.....	55,805,500
1883	6,053,000	72,000,000	.....	.....	995,000	.....	520,000	300,000	.....	.....	.....	.....	.....	.....	83,784,600
1884	8,800,000	37,000,000	.....	.....	100,000	.....	859,000	940,000	.....	.....	.....	.....	.....	.....	53,143,000
1885	5,700,000	68,000,000	.....	.....	300,000	.....	730,000	290,000	.....	.....	.....	.....	.....	.....	1,800,000
1886	6,451,000	57,000,000	.....	.....	1,400,000	.....	627,000	1,380,000	.....	.....	.....	.....	.....	.....	81,067,000
1887	5,130,000	56,500,000	.....	.....	900,000	.....	300,000	1,500,000	.....	.....	.....	.....	.....	.....	2,625,000
1888	8,076,000	56,000,000	.....	.....	675,000	.....	850,000	630,000	.....	.....	.....	.....	.....	.....	76,724,000
1889	5,846,500	21,000,000	.....	.....	2,475,000	.....	850,000	1,720,000	.....	.....	.....	.....	.....	.....	4,414,000
1890	7,735,000	52,000,000	.....	.....	2,875,000	.....	1,700,000	1,280,000	.....	.....	.....	.....	.....	.....	5,807,000
1891	7,307,500	75,000,000	.....	.....	2,800,000	.....	1,900,000	3,492,000	.....	.....	.....	.....	.....	.....	4,419,000
1892	4,823,500	44,500,000	.....	.....	3,050,000	.....	1,300,000	1,750,000	.....	.....	.....	.....	.....	.....	6,640,000
1893	9,835,000	68,000,000	.....	.....	2,660,000	.....	965,000	1,240,000	.....	.....	.....	.....	.....	.....	3,603,800
	95,600,200	728,500,000	23,893,000	22,106,000	18,302,000	13,024,000	21,774,000	15,910,000	26,553,200	34,905,000	12,429,500	224,100,000	6,145,000	41,072,300	1,284,808,700

The particular descriptions of fry above enumerated were as follows:—

<i>Salmonidae</i> —Atlantic and Pacific salmon, salmon-trout of the great lakes, and speckled trout of the streams.....	256,357,300
do Whitefish (<i>Coregonus</i>) of the great lake region.....	564,130,000
<i>Percidæ</i> —Pickerel, or dore (<i>Luciopeca</i>).....	210,223,400
Lobster fry <i>Homarus Americanus</i>	224,106,000
Grand totals of all kinds.....	1,284,808,700

NOTE.—In addition to the 95,600,200 fry distributed from this parent establishment at Newcastle, there are annually transferred from this institution to the eastern province hatcheries large numbers of semi-hatched ova of various kinds. In like manner the Sandwich nursery transfers annually large quantities of eyed eggs to other hatcheries, exclusive of the 728,500,000 of fry shown above. The Selkirk hatchery in Manitoba laid down many millions of whitefish eggs the past autumn; the result will appear next year.
* The hatchery at Bay View, N. S., is devoted wholly to lobster hatching.

Fisheries Report.

DESCRIPTIVE ACCOUNT OF HATCHERIES.

A brief descriptive account as taken from official reports is here given of the several fish hatcheries in the Dominion, with regard to location and capacity for work; also showing the output of young fish, and the numbers of eggs collected at each nursery during 1893.

1. FRASER RIVER HATCHERY, B.C.

This hatchery is built upon the Fraser River, some two miles above New Westminster. It has a hatching capacity of some ten million of salmon eggs, which have been hitherto wholly of the "Sockeye" species. The supply of water is conveyed in open troughs from a small running stream into the building and into the several hatching troughs. The supplies of eggs are collected from the parent fish netted in a small branch of the Harrison River some forty miles above the hatchery. It has been in contemplation to build another hatchery a greater distance up the Fraser. The selection has not yet been made. A generally prevailing opinion is that the successful operations in rearing fry at the Fraser River hatchery largely accounts for the extremely successful catches of salmon on the Fraser River during the present and some former seasons.

The crop of fry, bred in 1893 and distributed in the tributary waters of the Fraser River, numbered 5,764,000; and the quantity of "Sockeye" eggs collected and placed in the hatchery in October, 1893, amounted to 6,880,000. The latest reports concerning these eggs are of the most favourable character.

2. SYDNEY HATCHERY, N. S.

This nursery was not stocked with eggs during the season of 1892-93. Arrangements are now made to stock it with 300,000 salmon eggs from the Miramichi hatchery, N. B., so that an output of salmon fry will be made from the Sydney nursery in the spring of 1894.

3. BEDFORD HATCHERY, N. S.

This hatchery is situated on the Sackville river immediately alongside the Intercolonial Railway near the town of Bedford. Its water supply is obtained from the Sackville river, by an underground pipe into the hatchery. The supplies of salmon eggs up to 1891 were got from certain rivers in Nova Scotia. In 1891 efforts were made to get parent salmon in the rivers entering into Merigomish Bay—where only a few were taken; they gave 600,000 eggs. In 1892 no parent salmon were obtained for the Bedford hatchery, but a supply of 350,000 eggs were transferred to it from the Miramichi nursery. During the past season of 1893, 54 salmon were netted in the rivers of the Merigomish Bay; 35 were females and gave 300,000 eggs, which are reported as doing well.

There were distributed from this hatchery during the season of 1893, from the eggs of 1892, 320,000 salmon fry; and also 2,860,000 fry of the salmon-trout and whitefish species, transferred from the Ontario hatchery.

There were collected for this hatchery in November last 300,000 salmon eggs from Merigomish Bay, and 300,900 semi-hatched salmon ova will be transferred to it from the Restigouche hatchery,—and in addition also 2,500,000 eyed eggs of salmon-trout and whitefish from the Ontario hatchery.

4. DUNK RIVER HATCHERY, P.E.I.

Fish cultural operations in Prince Edward Island are for the present suspended, the hatchery having been destroyed by fire.

5. ST. JOHN RIVER HATCHERY, N. B.

The work at the St. John River hatchery is producing good fruits, as shown by the report of the officer in charge, who states "That the general opinion is that the artificially hatched fry put into the streams has increased the supply of fish in waters where planted. In some lakes white fish and salmon trout are now found in which they were not previously known; and applications are being numerously made to stock the waters more largely than before."

The salmon are surprisingly increased in the upper parts of the River St. John and its tributaries; particular mention is made regarding the Tobique river where the angling lessees have made most satisfactory scores; two cases are mentioned as coming within the knowledge of this officer, when 27 and 37 salmon were respectively taken in a few days' fishing. Taking salmon with the fly in the Tobique River was not known until after it was stocked with Restigouche river fry, hatched in the St. John hatchery. Some of the fish taken have scored 27 pounds.

6. MIRAMICHI HATCHERY, N. B.

This institution shows continued success from the supplies of young salmon which have been turned out from it into the waters of the Miramichi River, and its numerous tributaries. With the same care and management which have characterized this hatchery in past years, the beneficial results already experienced by the fishermen will undoubtedly be largely increased in the future. This institution enjoys the approval and sanction of the public generally.

The past season's commercial catch of salmon has been the best for years, and the fishermen are now willing to concede this improvement as being largely due to the work at this hatchery. This, combined with efficient guardianship, must undoubtedly sustain the great resources which the Miramichi River and its estuary fisheries are capable of producing. There were 1,275,000 salmon fry bred in this nursery last season; they were planted in the principal branches of the Miramichi River in a healthy condition, and during the past autumn 1,575,000 eggs were laid down in this hatchery and are now undergoing incubation.

7. RESTIGOUCHE HATCHERY, QUE.

The prosperous condition of the salmon fisheries connected with the Restigouche river give evidence of the benefits which have resulted from the operations in artificial salmon culture carried on at the Restigouche hatchery for some years past. The officer in charge gives it as the unanimous verdict of the boatmen and guardians on the river that the parent salmon were never more plentiful on their spawning grounds up river than they were during last fall.

An interesting experiment is related in connection with this establishment regarding the growth and preservation of artificially bred fish as against the opinion of some persons skeptically inclined, who say that the nursery bred fry are all destroyed by trout and other predaceous fishes when turned out from the hatcheries. A small lake was chosen which was largely inhabited with trout and other fish. In it were planted a number of small salmon fry hatched in the Restigouche nursery. The fry planting took place some four years ago, and during the past summer a large number of young salmon of the size of parrs and smolts, the latter running up to a pound weight, were caught in this lake by anglers; and large numbers of those young salmon were also to be seen constantly leaping throughout the surface of the lake. This lake is wholly land-locked from the waters of the Restigouche River and Bay des Chaleurs, and is located on a mountain many hundreds of feet above the level of these waters. This is but one evidence, and a positive one too, amongst the many others that might be given to dispel the fallacy which prejudiced minds assert against the after life of young fish turned out from the Government hatcheries into the waters of the country.

Fisheries Report.

The number of salmon fry distributed from this Restigouche hatchery during the past spring of 1893 amounted to 1,083,000, and the quantity of eggs laid down in November last was 1,430,000.

8. GASPÉ HATCHERY, QUE.

This institution is not built upon the same enlarged scale as some of the others. The work performed, however, has proved to be of a successful character for supplying the salmon fisheries of the Gaspé basin, and the rivers emptying into it, namely, the Dartmouth, York and St. John. An evidence of this is shown from the successful scores made by the anglers, particularly on the St. John river, where upwards of 100 salmon were taken by the lessees with the fly. Increased catches by anglers on the fluvial parts of rivers must show correspondingly an increase of fish in the estuary and tidal fisheries.

The quantity of fry put out of this hatchery in the spring of the past year amounted to 655,000; and the number of eggs collected in the fall of 1893 was 910,000.

9. TADOUSSAC HATCHERY, QUE.

The report from this institution expresses the opinion generally held by the fishermen, that the hatchery has maintained the steady catch of salmon which has been experienced for some year past; evidences are also given of its effective work by the appearance of great numbers of young salmon that are to be seen leaping in the small lakes where they had been planted, and where the parent salmon could not get to, on account of natural barriers. These young salmon run from eight to twelve inches in length before leaving the lakes for the sea.

An auxiliary hatchery is recommended to be built in the vicinity of Chicoutimi, in which the usual supply of fry for the upper waters of the Saguenay could be hatched, and distributed much more cheaply and safely than by the present system of transporting the fry from the mouth of the river at Tadoussac at the expense of tug hire to the far up portions of the Saguenay, when during their transport considerable losses of the young fish are experienced.

The number of young salmon distributed from this hatchery last spring was 2,060,000; they were put in the tributaries of the Saguenay, and in several small lakes which have been found to be well adapted nurseries for their growth. The quantity of eggs collected and placed in the hatchery in November last was 2,094,200; they are progressing satisfactorily.

10. MAGOG HATCHERY, QUE.

A marked improvement is reported to have taken place in the waters of the district in the neighbourhood of this hatchery. The waters, however, require more efficient guardianship as well as larger supplies of fry to place them in the position they held years ago.

The supply of eggs for this hatchery are obtained from the Newcastle and Sandwich nurseries. The fry planted from the Magog institution in 1893 numbered 3,600,000 of white-fish and salmon-trout. The quantity of eggs proposed, to be transferred to the hatchery for the coming season will be 3,000,000.

11. NEWCASTLE HATCHERY, ONT.

At this place artificial fish culture was originated in Canada, and it is the locality also where the first public governmental fish cultural works were established on this continent.

This institution commenced with the raising of salmon. It is now wholly used for the production of the principal commercial fishers indigenous to the great inland lakes of Ontario, such as salmon-trout and whitefish, &c.

The supplies of salmon-trout eggs are obtained at Wiarton on the Georgian Bay, where the officers connected with the hatchery employ their own nets and fishing gear for capturing and impounding the parent fish until ripe for manipulation; after which the fish are liberated again alive. The eggs are then conveyed to the Newcastle nursery, where after becoming semi-hatched, the quantities required for the eastern province hatcheries are shipped by railway express, generally in the months of February or March. The water for the hatching purposes is taken from a large pond formed upon an ever-flowing stream which empties into Lake Ontario. The quotas of semi-hatched eggs transferred to the eastern hatcheries in 1893 amounted to 3,645,000, and the gross output was 9,835,000. Of these upwards of 6,000,000 were distributed in many of the lakes and other waters of Ontario. The quantity of eggs collected during the autumn of 1893 and put in the hatchery troughs in this nursery was 9,000,000.

12. SANDWICH HATCHERY, ONT.

This hatchery is devoted now almost exclusively to the rearing of whitefish; but pickerel (*doré*) were formerly hatched here in considerable numbers; automatic glass incubators are used here exclusively, as they are best adapted for hatching all kinds of the smaller and semi-buoyant eggs. The establishment with all its breeding apparatus is worked by steam power, with duplex pumps which draw the supplies of water from the Detroit River into the upper part of the building, when by gravitation it runs downward into the incubators, percolating through the eggs until they are hatched into fry, when the little fish pass down into a large reservoir where they are kept safely until they are fit for distribution.

Many millions of these eggs in their semi-hatched stage have been transferred annually to the eastern nurseries; 17,000,000 were so shipped to the hatcheries in Quebec, Nova Scotia and New Brunswick during the season of 1893, and the total shipment of eggs and fry to all points from the Sandwich hatchery in the spring of 1893 amounted to 85,000,000.

There are two fishing stations worked by the officer in charge and his employees for catching the parent whitefish to supply eggs for the Sandwich establishment, namely: Bois Blanc Island, and Fighting Island fisheries, on the Detroit River; seines are used to catch the fish, when they are kept in cribs or crates, until ripe for spawning; after manipulation they are turned into the river again. The injured fish (if any) are given away, or sold at the end of the close season. There were collected in November last, in this way, about 95,000,000 of whitefish eggs, which were placed in the incubators and all are doing very well.

13. OTTAWA HATCHERY, ONT.

This hatchery is wholly supplied with impregnated fish eggs from the Newcastle and Sandwich hatcheries in Ontario, consisting of salmon-trout, speckled-trout, and whitefish ova. The fry from these, when hatched, are distributed throughout the waters of the Ottawa district and valley. This institution, from its location at the capital of the Dominion, is visited by the representatives in Parliament, and many other persons of note, from all parts, whose business and pleasure may call them to the city of Ottawa. In this way the Ottawa hatchery has become in a large degree an educator to the public generally on the practical working of fish cultural science in Canada. Its immediate connection in the same building with the Dominion fishery exhibits give additional interest in all fishing matters under the Department of Marine and Fisheries.

The number of fry of various kinds put out from the hatchery in the past season was 6,208,000. And the supply of eggs placed in the nursery to be hatched for next year's distribution will amount to 5,250,000.

14. BAY VIEW LOBSTER HATCHERY, N.S.

This establishment was built expressly to assist in keeping up the lobster industry, which had been showing marked signs of falling off in many parts of the lower

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provinces. Its erection in 1891 introduced the first attempt in Canada for rearing lobsters by the artificial methods of propagation. The apparatus applied was wholly new, being the first of its kind ever used anywhere for lobster hatching. Automatic glass incubator jars specially designed for the purpose were set up, and have been used ever since, answering the purpose admirably in the hatching of upwards of 224,000,000 of young lobsters, which were planted in the waters of Northumberland Strait.

The establishment is propelled by steam power with a powerful pump which draws the salt water from the bay to the upper part of the building, and into a large wooden tank, from which it is run off by piping conveying the water into the incubator, and setting the eggs in motion. The eggs are taken from the ripe lobster as they are brought to the lobster factories in which the canning business is extensively carried on.

The output of young lobsters for the past season of 1893 was 153,600,000, they were reported to have been widely and safely distributed in many parts of the Northumberland Straits in a healthy and vigorous condition.

15. SELKIRK HATCHERY, MAN.

This is a newly built hatchery, put up during the past summer; it is located on the Red River at the town of Selkirk, intended more particularly for rearing white-fish, but so arranged, nevertheless, as to hatch salmon-trout and other fishes if necessary.

The water to feed the hatchery is driven by a powerful steam engine and duplex pump from the Red river to the upper storey of the building into a large reservoir, from which it flows downward through pipes into the glass incubators and through the eggs in them, until the fry are hatched:—

The white-fish eggs are collected in November by the officer in charge and his assistants, who net the parent fish at the head of Lake Winnipeg. After the collection and vitalization of the eggs they are conveyed up river some twenty miles, and put in the incubators at the hatchery, where they are cared for till the hatching time, which is generally in April and May following. To avoid the possibility of any injurious effects which might befall the eggs from the Red River water at the time of spring freshets, an artesian well is being sunk immediately alongside the hatchery, from which supplies of pure water will be drawn by the steam pump to be used in the place of the river water for the time being.

No output of fry can be shown for the present year, as the first supply of eggs for this institution were only collected in November last. They amounted to some 21,000,000, and are now undergoing incubation, they are reported to be in a healthy state.

EXTRACTS FROM FISHERY OFFICERS' REPORTS REGARDING INCREASED CATCHES OF SALMON AND OTHER FISH IN WATERS ADJACENT TO RIVERS WHERE FRY FROM THE HATCHERIES HAVE BEEN PLANTED.

FROM REPORT OF FISHERY INTELLIGENCE BUREAU, NOVA SCOTIA.

Hall's Harbour.—Salmon fishing at Hall's Harbour during the past few days has been the best ever known; remarkable, fine catches have been made. Last Friday one party took 152 fish, another 75, one of which weighed $42\frac{1}{2}$ pounds. On Sunday 91 fine large fish were taken in two tides; another catch amounted to 301 salmon; another catch of 96 on Saturday, also 117 on Sunday. One firm shipped from Kentville, on ice, to Boston, 1,075 lbs. In all about 2,800 lbs. of fresh salmon were shipped to Boston on Saturday. The total catch of salmon on Sunday and Monday aggregated five tons.

La Have.—Salmon were reported more plentiful in La Have river this year than for many years past, there being good catches repeatedly made.

Sand Point.—The average catch of salmon was fair and this is reported a much better season than for the past five years. The fishing is improving yearly.

FROM INSPECTOR KINNEY'S REPORT.

King's County exhibits a phenomenally large run of salmon, the increased take was 200 per cent over the catch of 1892. In the county of Digby the increase was 300 per cent, whilst Shelburne exhibits a shortage.

Overseer Reed of Wolfsville regrets that the Gaspereaux River is not as productive as desired, but believes that the large take of salmon in the bay is attributable to the planting of former years.

Overseer Miller says: The coves were swarming with young salmon, as many as 300 to 400 being taken at one tide. These fish weigh from 5, 6, 7 lbs. each, and it is thought they are the product of the hatchery.

Overseer Bailey states that white-fish and salmon trout, the product of the Bedford hatchery, are making their appearance in this district.

FROM INSPECTOR HOCKIN'S REPORT.

The increase in the salmon fishery has been almost wholly in those counties bordering on the Bay of Fundy, where the catch has been unusually large, and the largest recorded for the last fifteen years.

In Guysboro' County there is a decrease of 1,200 lbs., while in Halifax County 8,500 lbs. were taken in excess of the last year. Antigonish County shows a decrease, while Pictou County shows an increase of 3,700 lbs.

Inspector Bertram says: The statistics give a total increase in the salmon fishing over 1892 of 28,750 lbs. of fresh, salted and canned fish, which he attributes to the protection afforded the various runs by the department, and the increase in the number of the policemen.

Respectfully submitted.

SAMUEL WILMOT,
Chief Supt. Fish Culture of Canada.

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APPENDICES.

REPORTS OF THE OFFICERS IN CHARGE OF FISH-BREEDING ESTABLISHMENTS IN THE SEVERAL PROVINCES OF CANADA, FOR 1893.

1.—FRASER RIVER HATCHERY.

PROVINCE OF BRITISH COLUMBIA.

REPORT OF THE OFFICER IN CHARGE FOR 1893.

SIR,—I have the honour, in submitting the annual report of proceedings in connection with the Fraser River Fish Hatchery, under my charge, of recording a very successful season's operations.

During last March and April I distributed 5,764,000 sockeye salmon fry as follows:—

March 20th, Pit Lake.....	740,000
do 25th do	600,000
do 27th, Nicomikle River	50,000
April 1st, Harrison River.....	1,200,000
do 11th do	1,387,000
do 19th, Stave River... ..	650,000
do 24th, Harrison River.....	1,087,000
do 24th, Squamish River.....	50,000

No eggs were got from or sent to other hatcheries.

The parent fish captured were all of the sockeye, "Nerka" variety. No record of the number from which ova was taken, was kept, but as the females average about 3,500 eggs each, the number must have been about 2,000 females and 1,500 males.

The number of eggs collected and laid in the hatchery during the season of 1893 was 6,880,000.

The eggs were received at the hatchery from Morris Creek, Harrison River, on the following dates:—

October 3rd.....	2,100,000
do 7th.....	1,224,000
do 14th.....	1,000,000
do 20th.....	1,288,000
do 27th	1,368,000

6,880,000

I am not in a position to state definitely the result of planting the fry in the various waters. More than half of the fry from the Fraser River hatchery have always been planted in Harrison River, which is the most suitable place available, but at the season when it is necessary to put out the young fish, the water is so low in the river, that it is impossible to get up the rapids on the Harrison, with the scows and although there is not a question in regard to the great benefit which has resulted from planting the fry, where of necessity it has to be done, still many persons believe that the benefits would be greater if the hatchery were situated above the rapids, in which case, both the Harrison Lake and river, and their numerous affluents would be made more accessible; and also many other suitable streams in which fry could be

planted. The present hatchery, building and plant are getting considerably out of repair, for in the expectation that at any time during the last three years the present hatchery would be removed, as little as possible has been spent in repairs,—only such as was absolutely necessary to ensure the success of the seasons operations.

If it be determined to operate the present hatchery for another season, extensive repairs will be required, and an almost entirely new outfit of plant and appliances will be necessary; without knowing whether the present hatchery will be operative another season, or that a new one will be built at Harrison or elsewhere, it is impossible to submit any satisfactory suggestions regarding its maintenance or improving the present establishment. The success of a hatchery to be considered as a factor in keeping up a supply of fish, is not to be measured by the number of ova laid down or successfully hatched, but it is from the number of fry which may be successfully planted in suitable places for food and shelter, and where there is an absence of predatory fishes.

The facilities and appliances for planting the young fish are also very important considerations in connection with the prosperity of a hatchery. Numerous letters have been received and visits have been made by gentlemen interested in the salmon fishing of Alaska and the Columbia River in the United States enquiring about the capacity and the general working of the Fraser River hatchery, all of whom expressed the opinion that, to the successful operations at the Fraser River hatchery is mainly attributable the unusually successful catches of salmon on the Fraser River during the present and past seasons.

JOHN McNAB,
Officer in charge.

2.—SYDNEY, CAPE BRETON, HATCHERY.

PROVINCE OF NOVA SCOTIA.

REPORT OF OFFICER IN CHARGE FOR 1893.

SIR,—In respect to the present position of the hatchery and its efficiency for future work, I beg to say that new troughs are necessary, and some general repairs all around will be required to make the hatchery efficient for future work.

The above facts are all that I can say in this report, and all that I think is necessary, owing to the hatchery not being in operation the past year.

W. J. DUNLOP,
Sydney Fish Hatchery.

3.—BEDFORD HATCHERY.

PROVINCE OF NOVA SCOTIA.

REPORT OF OFFICER IN CHARGE FOR 1893.

SIR,—I have the honour herewith to submit a report upon the operations at the Bedford hatchery for the portion of the year 1893, while this institution was under my charge.

No instructions having been given during the fall of 1892, to secure a supply of ova from the rivers of Nova Scotia for this hatchery, I was obliged to await a supply from other sources.

During the month of March I received from the hatcheries in Ontario 3,000,000 whitefish ova and 750,000 salmon-trout ova, and from the Miramichi hatchery a further supply of 350,000 salmon ova.

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These were hatched and distributed as follows:—

SALMON.

Indian River, Halifax county.....	20,000
Nine Mile River, Halifax county.....	20,000
Fall do do	20,000
Philip do Cumberland county.....	40,000
Annapolis do Annapolis county.....	40,000
Le Quille do do	20,000
Le Quille W Branch do	20,000
Round Hill, do do	20,000
Gaspereau River, King's county.....	40,000
Gold do Lunenburg county.....	20,000
Middle do do	20,000
Le Have do do	40,000
Total salmon	320,000

SALMON-TROUT.

Lake Thomas, Halifax county.....	20,000
Lake William do	20,000
Hubley's Lake do	40,000
Rocky do do	40,000
Paradise Lakes, Annapolis county.....	40,000
Total salmon-trout.....	160,000

WHITEFISH.

Grand Lake, Halifax county.....	300,000
Hubley's Lake do	300,000
Lake Thomas do	300,000
Lake William do	300,000
Paradise Lakes, Annapolis county.....	300,000
Beeler's do do	300,000
Round Hill Lake do	300,000
Loon Lake, King's county.....	300,000
Lake George do	300,000
Total whitefish.....	2,700,000

TOTALS.

Salmon.....	320,000
Salmon-trout	160,000
Whitefish	2,700,000

Grand total distribution..... 3,180,000

During the summer season some necessary repairs were effected, and the fences around the grounds in part renewed, all trays, tanks, troughs, etc., were repainted, and put in condition for further use, and on the 6th November, when I left, to take charge of the Newcastle hatchery in Ontario, everything about the hatchery was in fair condition.

A. B. WILMOT,

Former officer in charge Bedford Hatchery.

NOTE.—The report of Mr. Ogden, successor to Mr. Wilmot, at the Bedford hatchery is herewith attached.

3.—CONTINUED.

SIR,—On the 15th November last, I took charge of the Bedford Hatchery, having been previously engaged at Merigomish, capturing and spawning parent salmon for this hatchery, a full report of operations there has been sent to the department.

There were 54 salmon taken, 19 males and 35 females. The latter when spawned, yielding about 300,000 eggs, which were laid down in troughs in the month of November and are now doing well. A set of new hatching troughs will be required next season, as the old ones are very tender and past repairing.

Some repairs are absolutely necessary about the exterior of the main building, such as new eavestroughs around the whole building, some repairs to the roof, and probably a coat of paint to prevent decay.

The storehouse and workshop requires to be resingled as the roof is entirely gone.

I have made new storm doors and put up temporary eavestroughs for the winter, but in early spring the above repairs should be effected.

ALFRED OGDEN.

Officer in charge, Bedford Hatchery N.S.

4.—ST. JOHN RIVER HATCHERY.

PROVINCE OF NEW BRUNSWICK.

Report of the Officer in charge for 1893.

SIR,—I have the honour, herewith, to submit the annual report of transactions at the fish-breeding establishment under my supervision for the year 1893.

As previously stated in my report for last year, being assisted by Mr. A. B. Wilmot of the Bedford Hatchery, there was collected at the Carleton Pond, St. John harbour, 885,000 salmon eggs, they were carefully conveyed to the hatchery, and placed in troughs in the usual manner. In the month of March following I received a further supply of ova from the Sandwich and Newcastle hatchery Ontario, consisting of 3,000,000 whitefish and 1,000,000 salmon trout, brought over in charge of Mr. William Parker, they arrived in good condition, and continued to do well all through the winter and yielded a good percentage of young fry in the spring, which were all distributed in good order, and planted in the different lakes and waters hereinafter specified :

Distribution of whitefish fry.

Harvey Lake, York County.....	560,000
Oromocto Lake do do	320,000
Lake George do do	240,000
Lake Yohoe do do	240,000
Foster Lake, Charlotte do	320,000
Lakeville, Carleton do	320,000
Jone's Lake " do	320,000
Long Lake, Victoria do	160,000
Byram Pond, Madawaska County.....	120,000

Total whitefish..... 2,600,000

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Salmon-Trout Fry.

Lakeville Lake, Carleton County.....	24,000
Jones Lake do do	24,000
Gumiac Lake do do	24,000
Lake Disappointment, Queen's County.....	24,000
Oromocto Lake, York County.....	24,000
Lake George do do	24,000
Lake Killarney do do	24,000
Oromocto Lake do do	24,000
Long Lake, Victoria County.....	18,000
Byram Pond do do	18,000
Lakes Temiscouata and Squatook, Temiscouata Co., P. Q.	24,000
Portage Lake, Victoria County	18,000
Ball's Lake, St. John County.....	24,000
Total salmon-trout.....	294,000

Sea Salmon Fry.

Oromocto River, York County	40,000
Magaguadavic River, York County	40,000
Skiff Lake and River do do	40,000
Lake Alva, Musquash River, King's County.....	40,000
Tobique River, Victoria County	30,000
St. John River, at and near the hatchery.....	175,000
Total sea salmon.....	365,000

Speckled Trout Fry.

F. R. Armstrong, St. John.....	15,000
George McAvity do	10,000
Jeremiah Holt, for Skiff Lake.....	5,000
Rapides des Femmes Brook, near the hatchery.....	10,000
Total speckled trout.....	40,000

Recapitulation.

Number of whitefish distributed.....	2,600,000
Number of salmon-trout distributed.....	294,000
Number of sea-salmon distributed.....	365,000
Number of speckled-trout distributed.....	40,000
Grand total of fry distributed 1893.....	3,299,000

This large quantity of fry of the different species was distributed at great distances from the hatchery to comply with the numerous applications made for them causing a vast amount of labour and care, and consequent expense, notwithstanding all this the work was safely and satisfactorily done.

COLLECTING SALMON EGGS.

About the 15th of last October, instructions were sent from the Chief Superintendent of fish culture to proceed to the Carleton Pond to assist Mr. Alexander Mowat from the Restigouche hatchery in taking the eggs from the salmon impounded there. On

the 27th October, I reached Carleton with my assistant, and found Mr. Mowat there when the necessary preparations were made for manipulating the parent salmon. On the 28th we commenced operations and continued collecting and packing the eggs until the evening of the 31st. On the 1st of November I left for the hatchery with three cases, containing about 600,000 eggs, leaving Mr. Mowat and my assistant at the reservoir in St. John to finish taking the eggs. On the 7th of November they arrived at the hatchery with the balance, making in all about 1,400,000 eggs, these were placed in the hatchery troughs in good condition. The total number of salmon manipulated at the reservoir was: females 228, males 75, total 303. The females were nearly three to one of the males. At present the eggs are looking fairly well, there is a good prospect that a good percentage of them will produce fry next spring. The embryo is now quite perceptible in them. Everything is working very satisfactorily in the hatchery, and there is a good supply of water.

REPAIRS.

No repairs are needed in the interior of the house beyond those already ordered by the department, namely, sheathing one side of house from the floor to the window-sill, so as to correspond with rest of the work; repairing the plaster on the ceiling which is considerably broken; the want of material prevented this work being done the past season, but it will have to be attended to early next summer after the young fry are put out. The repairing of the main dam was also ordered, but too late to have it done this season; there was temporary work done to make it answer this winter.

INCREASE OF FISH.

It appears to be the general opinion, in this part of the country, that the artificially hatched fry put out from this house has increased the supply of fish in the waters where they were planted; and in stocking some lakes with whitefish and salmon-trout where they never existed before; evidence of this statement is shown by the increased number of applications now made for fry for both public and private waters. The salmon has surprisingly increased in the upper waters of the St. John River, and its tributaries, especially in the Tobique River where there is a remarkable increase, both in numbers and size of the fish. Last July I met Colonel Tucker, returning after a few days' fishing from the Tobique River, he had 27 salmon with him, one twenty-seven pounds weight. Another gentleman, from the United States, caught thirty-seven salmon in the same river. Others made good catches, but the particulars did not come to my knowledge. Good protection with the help of the hatcheries will soon establish a reputation for our rivers here.

CHAS. McCLUSKEY,
Officer in Charge.

5.—MIRAMICHI HATCHERY—PROVINCE OF NEW BRUNSWICK.

Report of the officer in charge for 1893.

SIR,—I have the honour to submit herewith my annual report for the year 1893. It is encouraging to report that this has been another year of success for this institution and all who are interested in the fisheries on this river, agree that if the present methods, and careful management are followed, the future success of this hatchery will assuredly follow the great benefits which have already resulted therefrom.

By referring to the annual report for 1892, it will be seen that at the time of its date there was in the hatchery troughs 1,425,000 salmon ova. According to instructions received from the department, Mr. A. B. Wilmot, of the Bedford, N.S., hatch-

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ery, took from this nursery at the proper time for carrying them 300,000 to the Bedford establishment, leaving a balance of 1,125,000 ova to be distributed in out Miramichi waters. In addition to this, 200,000 salmon ova were obtained from the Restigouche Hatchery, making the total number of salmon ova in this hatchery amount to 1,325,000. Very gratifying results were met with in the hatching of this large amount of eggs. The total loss from the time of gathering until distributing, was very small, leaving 1,275,000 fry for distribution.

They were planted in a vigorous and healthy condition in the following streams:—

In the North-west Miramichi at "Camp Adams" and North-west Falls (Restigouche fry).....	200,000
North-west Miramichi, from Camp Adams to O'Shea's Beaches (Miramichi fry).....	350,000
Little South-west Miramichi (Miramichi fry).....	250,000
Sevogle River (Miramichi fry).....	150,000
Renous River do	50,000
Main South-west Miramichi, from Doaketown upwards (Miramichi fry).....	250,000
Stewart's Brook.....	25,000
<hr style="width: 100%; border: 0.5px solid black;"/>	
Total number distributed	1,275,000

Owing to the warm weather during the time of distribution, great care had to be taken of the fry while in the cans, especially when carrying them by rail. However, none but trifling losses were met with, and it is safe to assert that the fry were never planted in a healthier condition.

CAPTURE OF PARENT FISH.

During the month of August, the retaining pond was enlarged and water deepened, so that better accommodation might be given the parent fish. New nets having been procured and everything put in readiness, operations were commenced on 7th September, and on the 18th October the work was completed, little more than a month having elapsed from the time of commencement, a full supply of fish were obtained. They were procured from the old fishing stands in the non-tidal waters of the North-west and little South-west Miramichi. From the North-west branch there were obtained 135 females and 100 males, and from the Little South-west, 100 females and 75 males, making the total of 240 females and 170 males. The season was fairly favourable for our work, the only drawback being several small freshets which caused fishing to be suspended for a few days. Grilse were very plentiful, and the men engaged at the work state that salmon were never so plentiful since operations were first commenced at this hatchery.

The total amount expended in procuring this number of fish amounted to \$510.81. This includes the cost of obtaining new nets and repairing old ones, as well as repairing crates, canoes and shanties for men. These items, which amounted to about \$75, should properly have been charged to the repairing account. But including these, it will be seen that the average cost of each fish was slightly below \$1.25.

COLLECTION OF OVA.

Spawning season set in early in October, the first fish being stripped on the 23rd of that month. This is earlier than the work usually commences at this hatchery.

With the exception of ten fish, which were liberated before spawning commenced, the ova was delivered by all in a healthy looking condition. The total number of ova obtained was 1,575,000—showing the average number delivered by each fish to be about 6,850.

Following are the dates on which the work of stripping was performed, and the number of ova obtained each day:—

Date.	No. of fish stripped.	No. of ova obtained.
October 23	32	224,000
24	29	203,000
25	40	272,000
26	70	468,000
27	37	257,000
30	15	105,000
31	3	20,000
Nov. 4	4	26,000
Totals	230	1,575,000

This number of ova were placed in the hatchery and remain in a healthy looking condition.

It might here be added that if any other hatchery is not fully supplied, it would be advisable to remove at least 300,000, so that better accommodation would be given the remainder at hatching time.

REPAIRS.

During the month of August the repairing that was ordered by the department was commenced—a complete set of new hatching troughs were placed in the house, as well as a new supply tank, which, with the new metal taps, makes quite an improvement, both in efficiency and appearance. The underground waste-water pipes were also taken up and replaced by new ones. The inside walls of the hatching room were ceiled and the troughs and tanks given a fresh coat of paint, and everything generally brightened up. The total cost of this work amounted to \$286. Unless some unforeseen accident occurs, no further repairing will be required about the building or dams for a few years, excepting the outbuildings, some of which are in a very unserviceable condition. Estimates have been forwarded for the building of a new coal and storage shed, which is very much needed. This, together with the repairing of nets, crates, distributing cans, and other details, will necessitate an outlay during the coming year of about \$200.

GENERAL REMARKS.

In conclusion, I may say that this hatchery and its appliances in general are of a satisfactory condition, and that the institution enjoys the approval and sanction in the public, which it has earned for itself, and fish culture in general, by the evident benefits which it has conferred upon our rivers, and which are apparent in the splendid condition of the salmon fishery for the last three or four years, after a fair trial the hatchery now stands in greater favour than ever before, and it must be claimed that this is evidence of the good condition of the fishery and the popularity of this artificial work, for if the fishery were decreasing instead of increasing, there are some who would be only too proud to place it in a bad light before the public. But everything is against opinions of this kind. The past season has been the best for years for the salmon fishermen, and what better evidence is needed than to have the river full of fish nearly all the time. This great improvement in the fishery is generally conceded, by all our fishermen and others interested, to be the work of the hatchery, coupled with the improved protection now extended to our streams by the department during the fishing season, as well as a thorough protection of the parent fish and spawning grounds on most of the streams during close season.

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It is therefore not unreasonable to say that if this good protection is continued together with the benefits yearly derived from the hatchery, that the salmon fishery of this river is fully assured to remain in a healthy and remunerative condition for further years.

Submitting the above for your consideration.

ISAAC SHEASGREEN,
Officer in charge, Miramichi Hatchery.

6.—RESTIGOUCHE HATCHERY, PROVINCE OF QUEBEC.

Report of the Officer in charge for 1893.

SIR,—I beg to submit herewith a report of proceedings as carried on at the Restigouche Hatchery during the past year.

One million one hundred and ten thousand eggs were collected in the fall of 1892, from which were hatched 1,083,000 fry, which were distributed in the various rivers and streams as follows :—

Kedgwick River.....	200,000
From hatchery to mouth Kedgwick	223,000
Upsalquitch River.....	150,000
Metapedia River and Lake	200,000
Parker's Lake.....	10,000
Number of eyed eggs transported to Miramichi estab- lishment.....	200,000
Total.....	1,083,000

The above numbers of fry were all towed as usual to their destination in floating crates, and were planted out in very fine condition. No other kinds of eggs, but those of the sea-salmon were hatched in the Restigouche hatchery the past year.

COLLECTING EGGS IN 1893.

The work of reconstructing the retaining pond at Tide Head began the 20th of May, and the two Government nets were placed in fishing order on June 1st and 12th, the total catch being as follows, viz. :—

	Salmon.	Grilse.
Murray Island net	297	29
Pett's Creek net.....	42	12
Purchased from M. Adams.....	111	0
Do George Duff.....	10	0
Total.....	460	41

Thirty-one of these fish died from fungoid disease and were buried, the loss occurred after the fish were deposited in the retaining pond. Many of the fish being injured by escaping through the nets in the tide way below. According to the daily diary which was kept, 429 fish should still be remaining in the pond, but when they were gathered down in the fall for the collection of the eggs, only 405 spawning fish could be obtained ; 173 female and 232 males, from which were collected 1,430,000, an average of about 8,000 eggs per fish, the manipulation began on the 16th of October and continued until the 7th of November. All the eggs were conveyed to the hatchery in boats by water, and no loss was met with, and the eggs are in a fine healthy condition at the present time. The young fish being perfectly formed in the egg, a successful hatch can be guaranteed. A very large number of small young fish were handled at the pond this season, reducing the average number of eggs from

10 to about 8,000 per fish. The majority of the parent fish were marked by inserting a hole through the tail and adipose fin with a sharp punch. This is likely, however, to grow up as soon as the fish returns to sea.

REPAIRS TO HATCHERY.

The supply dam with pipe and flues and the floor of hatching room were thoroughly repaired during the summer. Also troughs, tanks and trays were varnished, and the whole machinery put in first-class order for the reception of the ova in the fall, and as the plant is now in a good state of preservation, very little repairs will be required for another year's operations.

THE RETAINING POND AT TIDE-HEAD.

This pond must be reconstructed every spring, and removed again in the fall, --a difficult work to do--difficult because of a high freshet about the 15th of May, when the work of constructing the pond must be proceeded with in order to have it ready for the reception of the first run of fish, difficult because of the strong current and muddy water at this date. It is, therefore, rather chance work of making it perfectly close at the bottom in order to prevent the escape of the fish, especially when it is an authenticated fact, that salmon will work themselves underneath the nets in the gravel and sand, and even leap several feet over the top of a net in order to escape. The inclosure is built 15 feet high at either end, with timbers and lattice work, and must be sufficiently strong to withstand freshets and high tides, and yet allow the free circulation of water. A number of new gates were put in use last season, and some new wire-netting made. A few slight repairs may be needed in the spring, and some new net stakes and small mesh net will be required, and a new fishing canoe, this will be about all the improvements necessary for the practical working of the establishment another year.

THE CAPTURE OF PARENT FISH.

As I have stated before upon this depends the entire success or failure of the whole work of fish culture here. It is quite evident that the system of capturing parent fish, at both the Restigouche and St. John cannot be improved upon unless to increase the numbers of fish caught. As for instance, 405 fish were manipulated at the Restigouche establishment, and 303 at the Carleton pond, St. John River, total 708 fish, yielding 2,830,000 eggs. All of which are a clear gain to the rivers, because if they had not been taken for breeding purposes they would have been marketed and the eggs totally lost. There has been some opposition to the system of taking parent fish for the Restigouche nursery, but the grievance was only imaginary, and agitated for a cause by interested parties. The fishermen, unfortunately for themselves, from some selfish motive are too apt to overlook the very thing that may be to their best interest.

Let us see what the results would be, providing there were no Government nets operated at Tide Head. The 54 fish caught in the northside net at Pett's Creek would have passed up river for the numerous anglers to have had a share of. The 121 fish purchased from Messrs. Adams and Duff, would have been marketed, and the 249 caught by the Government net at Murray Island, would have been caught in Mr. Duff's net, which is set immediately above, as there would be no chance for their escape these would also have been marketed. These 370 fish and upwards of 1,000,000 of eggs were thus saved to the river by the operation of the Government nets for the benefit of both netters and anglers, and when the artificial culture of salmon and other fishes has been proven to be of great benefit to the general public in Canada and elsewhere in the world, why should the fancied opposition of a few individuals from selfish motives be allowed to interfere with a work of such importance to the fishing industry.

Fisheries Report.

RESULTS OF THE ARTIFICIAL HATCHING.

The beneficial results of the work now carried on in this Dominion and also throughout the world having been so well demonstrated, that very little new proof may be added. The fact of the prosperous condition of our rivers here, with their increase of fish from year to year, and the thousands of parent salmon to be seen on the spawning beds up river in the fall are sufficient evidence of the utility of this artificial work. Salmon are also increasing in numbers in many of the tributary streams of the Restigouche, where fry have been planted from this nursery, and it is the almost unanimous verdict of boatmen and guardians on the rivers that the spawning fish were never more plentiful than they were this fall.

HATCHERY FRY ARE NOT ALL EATEN UP AS ALLEGED.

A few salmon fry were planted in the Parker Lake four years ago. This lake is situated three miles from the town of Campbelltown, and is a great resort for anglers for trout fishing. It was generally held by those unacquainted with the natural instincts of the young salmon to escape from their enemies, that they would all be eaten up in this lake by the trout and other predaceous fish inhabiting its waters. This opinion has been overcome by the fact of a number of (smolt) young salmon weighing about a pound each having been caught in this land-locked lake during the past season, and that hundreds of the smaller young salmon could be seen leaping all over the lake.

THE RESTIGOUCHE AND CALIFORNIA SALMON.

Both the above species were handled by me at the Carleton reservoir at St. John harbour during the collection of the eggs for the St. John hatchery this fall. The California salmon were very distinctly and differently marked from those of the native Atlantic fish, and undoubtedly are the results of the 150,000 California fry that were planted in the headwaters of the St. John River in 1882. I had charge of the institution at the time, and this consignment of semi-hatched eggs were originally obtained from the Sacramento (California) hatchery, and sent on by Mr. Superintendent Wilnot to the St. John river hatchery. Consignments of the Restigouche fry have also been planted in the St. John River and its tributaries on several occasions. It is from these causes that the large 30-pound salmon are now caught in the St. John river, as well as the few California salmon above referred to.

Having been despatched by orders from the department to assist Officer McClusky last fall in manipulating the salmon in the Carleton reservoir at the St. John harbour, and to assist in transporting the eggs up river to the St. John River hatchery, Mr. John Mowat, of Campbellton, was directed to perform my work at the Restigouche hatchery, I therefore submit herewith his report of operations in collecting the eggs for that nursery:—

CAMPBELLTON, 20th November, 1893.

To ALEX. MOWAT,
Officer of Restigouche Hatchery.

SIR,—After your departure to St. John, I took charge of your work at the salmon pond at Tide Head, according to your instructions. I handled the parent fish by putting them in the cribs and taking some 300,000 eggs which, together with the former lot, making in all twenty cases, were despatched by scow to your Dee Side hatchery, and the following day I saw a portion of them laid in the troughs in prime condition. The week following the balance of fish unspawned was manipulated and the eggs sent to the hatchery by canoe. The parent fish are all liberated in good condition; the pond stripped of its timber and screens; the boats, cribs, small scow, and all appliances were hauled up and stowed away for another year. The season for the work was favourable, only one very cold day occurring. From

all accounts I have been able to collect from guardians, boatmen and others, the spawning beds on the Restigouche River and its tributaries showed very large numbers of breeding fish, much more than usual.

JOHN MOWAT.

All of which is respectfully submitted.

ALEX MOWAT,

Officer in charge of Restigouche Hatchery.

7.—GASPÉ HATCHERY—PROVINCE OF QUEBEC.

Report of the Officer in charge for 1893.

SIR,—I beg to submit the report of operations connected with the above hatchery during the past year. Work in Dartmouth River was commenced on the 20th May, and preparations were made for the season's business. Scows and flats were repaired and other necessary arrangements made. The nets were set on the 1st and 2nd of June, and were kept in the Dartmouth River until 19th August, and captured 89 salmon. According to instructions, I purchased 29 more from Wm. Stanley at the current price of \$2 each, making in all 118 fish. Of these we discovered, when seining and cribbing them on 9th October, that four had died in the pond during the summer months, leaving 114, which consisted of 77 females and 37 males.

The collecting of eggs continued from 10th October to 11th November, yielding as follows:—

20 females averaged	15,000 eggs,	300,000 in all.
20 do	12,000 eggs,	240,000 do
37 do	10,000 eggs,	370,000 do

Total..... 910,000

These were all placed in the hatchery in good order. The parent salmon were taken back to the main river in scows and liberated in good condition. The planting of the fry of the spring's crop was commenced on the 20th of June and completed on the 15th of July. The following statement shows the number of salmon fry bred and planted out during the year, and their location:—

St. John River.....	220,000
York River.....	40,000
Dartmouth River, above falls.....	295,000
do below falls.....	100,000
	<hr/>
	395,000

Total 655,000

The transportation of the 295,000 above the falls in the Dartmouth River caused increased expenditure, but these fry with all others were most satisfactorily planted in their respective places. The hatchery is in first class condition. The troughs and trays were varnished and the interior of the hatchery was painted and cleaned and aired. The appliances were also fully prepared for the winter's work. The scows and cribs were all safely housed for another year. The outside of the building was also painted during the months of July and August last.

The Department net was set this year as before, and the anglers were well satisfied with it. The close season was faithfully observed. Considerable satisfaction was expressed by the lessees of the St. John's River at Gaspé, with the remarkable abundance of salmon taken in it this year; their catch with the fly being over 100. The upper waters of the Dartmouth and York rivers were also fairly well supplied with parent fish. The salmon fry were seen in the upper water of the Dartmouth river in large numbers.

HENRY DAVIS,

Officer in charge of Gaspé Fish Hatchery.

Fisheries Report.

8.—TADOUSAC HATCHERY, PROVINCE OF QUEBEC.

Report of the Officer in charge for 1893.

Herewith is submitted the annual report on the operations of the Tadoussac hatchery for the past year. From the eggs obtained in the fall of 1892, were hatched 2,060,000 fry and distributed in the following waters:—

Old Mill River, Chicoutimi county	300,000
A. Mars do do	200,000
St. John do do	200,000
St. Margaret River, by salmon stream, Saguenay county.	200,000
Baude do by Chisholm do do .	500,000
Baude do by Perron do do .	300,000
Mowat's Lakes, Saguenay county	300,000
Hatchery do do	60,000
	2,060,000

The planting of fry for the Upper Saguenay in the county of Chicoutimi, was done with the assistance of the tug-boat "Belle," owned by the firm of Price Bros. & Co., and the fry planted in the vicinity of the hatchery was done by carting. For the first time 200,000 fry were put in the salmon stream discharging into the St. Margaret River, north-east branch; there was only one place where it was possible to reach this stream by making a road down a hill. As usual the two departmental nets were set in May, and caught three hundred and twenty-two parent salmon. They were kept in the retaining pond for breeding purposes until ready to spawn. In that number there were two hundred and two females. They gave two million, ninety-four thousand two hundred eggs, which are now on the trays in the breeding-room and looking remarkably well, and judging from present appearances the distribution of salmon fry next season will be as large as the past season. The general opinion held by the net fishermen is that the Tadoussac hatchery has maintained the steady catch of salmon in this district for many years past. A proof of the efficiency of this hatchery is in the great number of young salmon that are seen in the rivers and lakes where they have been planted during the past years. For the people not inclined to believe in the beneficial work of fish hatcheries they drive to the Mowat's Lakes, near Tadoussac, where they will see any amount of young salmon from eight to twelve inches long. These young salmon were not known in these lakes until after the fry were put there from this hatchery. They are found there now in thousands. These lakes discharge into the St. Lawrence and Saguenay, by which means these young salmon reach the Gulf and sea to arrive at maturity; when they return again to the Saguenay and its branches for breeding purposes. During the summer the large tank in the breeding-room and the troughs and trays were painted and varnished in readiness for the fall operations. From the break of the old dam the water used in the old hatchery building for spawning purposes was cut off, and to supply this want a small building with a tank of 4 x 18 feet was built just over the stream which runs from the hatchery lake, and quite near the salmon pond where the parent fish are kept. The spawning of the fish for their eggs began on the 23rd of October and ended on the 8th of November. As already reported the repairs to the dam of the salmon pond ordered last spring could not be made on account of the material required from Quebec arriving too late. The material required, deals, spikes, &c., being on hand, the repairs will be made in the first days of April, before the water rises in the lake.

The 8-inch conductor pipe, under the contract, should be put down by contractor Nesbitt early next summer, not later than the first of July when the lake can be lowered to put it down. Nesbitt should be made to do this to fill his contract. It will be necessary for the department to give orders to have the dam at the lake

raised about 18 inches, which must also be done early in the summer to give time for the lake to fill up again before the fall.

Appended will be found the cost of constructing an auxiliary hatchery at Chicoutimi and running it. This is a necessity for the well working of this hatchery as it will economize expense and ensure greater results in the end.

The expense of building this auxiliary hatchery at Chicoutimi would not exceed \$400, and its annual maintenance, including fuel, labour and attendance would not exceed \$300. In this way the benefits from salmon breeding on the Saguenay would be greatly enlarged, and an output of 3,000,000 of fry in the Saguenay waters instead of about 2,000,000 as at present; and the distribution of the fry in the upper branches of the river could then be accomplished safely, expeditiously and cheaply, when from the long and doubtful means of conveying the fry up river by steamboats, now pursued, these upper waters cannot be reached except at the risk of losing many of the fry and at great expense.

L. N. CATELLIER,
Officer in Charge Tadousac Hatchery.

December 31st, 1893.

9.—MAGOG HATCHERY, PROVINCE OF QUEBEC.

Report of the officer in charge for 1893.

Herewith is submitted the following report of the Magog Fish Hatchery for the past year 1893:—

There were received in this hatchery in March last 3,000,000 whitefish eggs and 1,500,000 salmon trout eggs, eighty per cent of which were hatched and deposited in good condition, in the following bodies of water, viz:—

Memphremagog Lake,	Counties of Stanstead and Brome,
Brome and Oxford Lakes,	Counties of Sherbrooke and Brome,
Megantic Lake,	County of Megantic,
Joliette	do Richmond,
Key Pond	do Sherbrooke,
Massawippi	do Stanstead.

All of the above-named eggs were received from the Newcastle and Sandwich hatcheries, in Ontario. No parent fish were captured for the use of this hatchery during the past year.

The hatchery is in good condition and will require little or no repairs for the coming year.

Good accounts are given of the increase in salmon trout and whitefish in the sheets of water where the fry have been deposited.

It is, however, urged that more efficient protection should be given to salmon trout during the close season. A marked improvement in the last two years is shown, but there is still room for more.

All of which I respectfully submit.

A. H. MOISE,
Caretaker.

Fisheries Report.

10.—NEWCASTLE HATCHERY, PROVINCE OF ONTARIO.

Report of the officer in charge for 1893.

Herewith is submitted the following report upon the operations at this hatchery during the past year.

From information obtained from records in this office, it appears that in the autumn of 1892, 8,475,000 salmon trout ova were obtained at Wiarton, and deposited in the troughs of this hatchery, and that, subsequently, 3,000,000 whitefish ova were received from the hatchery at Sandwich, as also a further addition of 500,000 speckled trout ova from Mr. Ford, of the Credit Forks Trout Hatchery, making a grand total of 11,975,000.

During the month of February the distribution of semi-hatched ova, took place as follows:—

SALMON TROUT OVA.

Magog, Que.....	1,500,000
Bedford, N.S.....	1,000,000
St. John, N.B.....	1,000,000
St. John's, Nfld.....	100,000
	3,600,000
Total.....	3,600,000

SPECKLED TROUT.

St. John, New Brunswick.....	45,000
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Making a total of 3,645,000 eyed ova disposed of that season, and leaving a balance of about 8,330,000 ova still on the troughs of this institution.

The hatching of this large number of ova was very satisfactory, as was also their final distribution, which was performed, in accordance with the orders of the Department, as per the following schedule.

WHITEFISH.

Bay of Quinté, Belleville	500,000
do Picton.....	700,000
Lake Ontario, Cobourg.....	300,000
do Toronto.....	400,000
Lake Simcoe, Barrie.....	200,000
Lake Couchiching, Orillia.....	200,000
Georgian Bay, Midland.....	500,000
	2,800,000
Total.....	2,800,000

SPECKLED TROUT.

R. W. Standly, Grafton, Ont..	10,000
F. G. Hughes, Galt, Ont..	10,000
Jos. Goldie, Guelph, Ont.....	15,000
Rathbun Co., Deseronto, Ont.	15,000
Geo. Moore, Ancaster, Ont.....	10,000
Wm. Menger, St. Jacobs, Ont.....	10,000
Cyrus Teal, Woder, Ont.t.....	5,000
A. S. Hardy, Toronto, Ont.....	60,000
Shaw & Shaw, Walkerton, Ont.....	45,000
David Gilmore, Trenton, Ont.....	200,000
H. A. Ward, Port Hope, Ont.....	5,000
	385,000
Total.....	385,000

SALMON TROUT.

Lake Simcoe, Barrie, Ont.	200,000
Lake Couchiching, Orillia.	200,000
Georgian Bay, Midland, Ont.	300,000
do Wiarton, Ont.	500,000
do Collingwood, Ont.	300,000
Bay of Quinté, Belleville, Ont.	350,000
do Picton, Ont.	200,000
do Consecon	100,000
Lake Ontario, Toronto, Ont.	350,000
do Cobourg, Ont.	250,000
do Newcastle, Ont.	600,000
do Hamilton, Ont.	300,000
Hall's Lake, Aurora.	100,000
Rosseau Lake, Muskoka.	100,000
Huntsville do do	100,000
Haliburton do do	100,000
Beaver do do	100,000
Total.	<u>4,150,000</u>

GRAND TOTALS.

White fish.	2,800,000
Speckled trout.	385,000
Salmon trout.	4,150,000
Semi-hatched eggs sent away.	3,645,000
Grand total.	<u>10,980,000</u>

These fish were despatched to their respective waters in charge of a special messenger from this hatchery and I am informed, that notwithstanding the long distances to which some of them were transported, no loss was sustained. In two lots of speckled trout, which were shipped by express without a special messenger in charge and at the risk of the consignees, some loss was met with.

COLLECTION OF OVA.

On my arrival here from Nova Scotia on the 9th of October last, I found that Mr. Kennific, acting under orders from the department, had gone to Wiarton to prepare the nets, scows and other appliances for this season's operations, I accordingly went on to that point to take part in this work and found on my arrival that the stakes for the two nets had been driven and one net had been set, on the following day the remaining net was set and fishing was commenced at once. On the 13th, the day on which the nets were first raised, we found that about thirty fish had entered them, and on the 16th, when the first ova was obtained, there was about 250 fish in the two nets. We were favored with very fine and warm weather throughout the whole fishing season and succeeded in capturing in all about 3,000 salmon trout from which we obtained about 9,000,000 ova. Of this number 1,250,000 were delivered to Mr. Walker for the Ottawa hatchery, leaving 8,000,000 to be deposited in the troughs of this hatchery. At present these ova are doing well and in those collected during the early portion of the season the embryos are distinctly observable and I have reason to believe a very large portion of the stock has been thoroughly vitalized, and I can see nothing to prevent a successful hatching.

Fisheries Report.

REPAIRS.

So far as I have been able to observe in the short time I have had charge of this hatchery, it is in a fairly good state of efficiency for its work. The flume and gates at the head of the raceway have become somewhat decayed and I think it would be advisable to have them repaired during the coming summer, but no other repairs of any importance are immediately required.

IMPROVEMENTS.

I would suggest that the following improvements be added to this hatchery [1st. The building of a small ice house convenient to or possibly attached to the one end of the store room. By experience in transporting fry of the different species, in other provinces, it has been found that ice was absolutely indispensable to the safe carrying of young fish to any considerable distance and the same has been found to have been the case here. Although the water used in transporting fish from here, being spring water and much colder, yet during the warm weather generally prevailing during the performance of this work, to prevent sickening and loss of fish ice must be used. Heretofore, ice has been procured from parties in Newcastle, but that supply is not always certain or convenient and consequently it is recommended that a small building suitable for the purpose be erected alongside the hatchery here where a supply would be always immediately at hand.

2nd. The removal of the iron nursing tanks, proposed to be done by the former officer in charge, from their present locations, and arranging them in a group alongside the hatchery, between the building and the stream. There is ample room there for them all, and it would in every way be much more economical in handling and attending to the young fry than at present with these tanks, distributed so far away from the hatchery.

The above improvements it will be found would very materially add to the success of the work at this hatchery and lessen the annual outlay for labour and expenditure.

GENERAL REMARKS.

Before closing this report I might be permitted to say that since becoming in a measure acquainted with the extent and value of the salmon trout fisheries of the lakes, and especially of the Georgian Bay, and the possibility and desirability of increasing that wealth by artificial culture, it is suggested that much greater and more extensive efforts should be put forth to that end. The comparatively small number of fry planted from this one hatchery over such an extent of water as has been covered in the past cannot produce such satisfactory results as would be desirable.

Warton, on an arm of this bay, offers every facility for the extension of fish-cultural operations. Being centrally located on the south shore of the bay in the immediate vicinity of the most frequented natural spawning grounds, no difficulty would be met with in securing large quantities of ova, which, after being hatched there, could be readily distributed over all parts of the coast.

The fishermen and others interested in fisheries in that vicinity heartily appreciate the past efforts of the department in their behalf, yet a feeling exists that at the most these efforts are comparatively small, and a general desire is expressed that a hatchery of large proportions and capable of turning out millions of these young fish annually should be erected there at an early date.

The Buffalo Fish Company, an American corporation operating in Canada, handled during the past season over 3,000,000 pounds of fish of all kinds, all of which were caught in the Georgian Bay. These fish were purchased from the fishermen at the average price of six cents per pound, making an outlay of say \$180,000, which, together with the expenses incurred in storing and handling this

large quantity would probably increase the sum to \$200,000 per year. It will therefore be understood how valuable those fisheries are, and it will be conceded that all interested have a just right to be solicitous as to the future welfare of this great source of wealth and industry and with what justice they appeal to the Government to institute such means as will retain to them and their descendants this blessing.

A. B. WILMOT,
Officer in charge Newcastle Hatchery.

II.—SANDWICH HATCHERY, PROVINCE OF ONTARIO.

Report of the Officer in charge of the Hatchery, for the year 1893.

Herewith is presented the annual report of the work of this establishment for the past year.

The last year's report showed that there was gathered in the fall of that year some 95,000,000 eggs, from which were turned out 68,000,000 young white-fish and semi-hatched eggs, all of which were disposed of as shown in the following tables:—

EYED EGGS.

Newcastle, Ont	3,000,000
Ottawa, do	6,000,000
St. John, N.B.	3,000,000
Bedford, N.S.	2,000,000
Magog	3,000,000
Total.....	17,000,000

YOUNG FRY.

Point Edwards, Lake Huron	2,000,000
River St. Clair.....	1,000,000
Mitchell's Bay, Lake St. Clair.....	3,000,000
Peach Island, Lake St. Clair.....	2,000,000
Belle Isle, Detroit River.....	2,000,000
Fighting Island, Detroit River.....	5,000,000
In the Bay below Fighting Islands.....	2,000,000
Stoney Island, Detroit River.....	2,000,000
Bois Blanc Island.....	3,000,000
In Lake Erie, below Bois Blanc.....	2,000,000
Pigeon Bay, Lake Erie.....	2,000,000
Barr Point do	2,000,000
Colchester do	2,000,000
Kingsville do	1,000,000
Leamington do	1,000,000
Port Stanley do	1,000,000
Hamilton, Lake Ontario	1,000,000
Toronto do	1,000,000
Niagara do	1,000,000
In Detroit River at Hatchery	15,000,000
Making the total.....	68,000,000

The Department having the control of five fishing stations on the river had all the privileges necessary for catching a large number of fish, and were enabled to capture 13,500 parent fish, from which sufficient eggs were procured to fill the hatchery to its full capacity of 95,000,000.

Fisheries Report.

The following are the stations where the fish were captured, and the number of eggs obtained at each fishing ground :

	White Fish caught.	Eggs taken.
Bois Blanc Islands.....	1,800	13,000,000
No. 1 Pier Fighting Islands.	3,600	25,000,000
No. 2 do do	2,300	19,000,000
No. 3 do do	3,100	24,000,000
No. 4 do do	1,700	14,000,000
Total	13,500	95,000,000

It will thus be seen that there were captured 13,500 parent fish, a much greater number than was required to fill the house with eggs as it will not properly hold more than ninety-five millions; a large number of the fish were liberated as they were not required for the hatchery. These eggs were put in the jars in a good healthy condition and are now doing well, and will no doubt yield a large crop of young fish at the hatching time next spring.

The weather was severe and stormy in this section of the country this fall. The frosts set in so early and made the work of catching and handling fish a very severe one as well as more expensive.

The catch of fish all along this section was up to the average standard, and from all reports received the belief is that the fish bred by this establishment are gradually on the increase. To bear out this statement copies of two letters have been received from fishermen who have always been opposed to the hatchery.

Copy of Letters.

SANDWICH, ONT., December 27th, 1893.

To WILLIAM PARKER,
Manager of the Sandwich Fish Hatchery.

DEAR SIR,—You will please allow me to make you a statement in regard to the hatchery and the fishing in our lakes and rivers. I have been fishing for over twenty-five years and the scarcity of the fish had driven me out of the business entirely for the last four years, but I still take a great interest in the fisheries and fish hatching artificially. I have noticed for the last two years that whitefish and pickerel are showing a great increase. In the season of 1892, there was a large catch of whitefish in Lake Erie, more than the four previous years together; the season of 1893 was still better, so I have come to the conclusion that the hatchery must be a great success. Pickerel this last season were extra good in River St. Clair, but herring and perch have almost disappeared, there was but very few these last three years, and they have not been hatched artificially; so the hatchery deserves credit for the whitefish and pickerel which have increased. You will allow me to state to you a cause why the general reports of the fishermen show a decrease of fish. The fisheries of Lakes Erie and St. Clair are controlled by American firms under Canadian names and the fish are taken away at night with tugs and only about one load out of five is reported to the Department for fear they might be limited in their catch. I compliment you in having the hatchery so well stocked with spawn this season, and I hope that instead of turning the parent fish loose after they are spawned the department will order them to be given to the poor.

Yours truly,

JOS. D. MELOCHE.

SANDWICH, ONT., December 27th, 1893.

TO WILLIAM PARKER,
Superintendent Sandwich Hatchery.

DEAR SIR,—I am glad to state to you that I think you have caught more fish this season than in the season of 1892, also the fishermen of Lake Erie have caught more whitefish this year than the two previous years, so I may say that the fish breeding establishment is doing some good. Hoping that you will continue that institution.

Yours truly,

F. MELOCHE,
Fisherman.

CONDITION OF THE HATCHERY.

The hatchery is in good working order and very little or no repairs are needed at the present time.

At Bois Blanc Island, there will be some necessary expense in moving the shanties and fixing the hangs further up to the head of the Island. The water in the river is getting lower and lower each year, and will necessitate this moving. There is also another important thing to be done by removing a number of hangs or stones, which are in the way of the nets, at the bottom of the river, while fishing. The whole cost of this work would be in the neighbourhood of \$100.

Under the head of remarks, it is suggested that the department should have a boat for doing the work of transferring the eggs from the islands to the hatchery, and taking the fry from the hatchery to the waters, where they are to be planted. It would be a great addition and saving to this hatchery to have a boat at its own disposal, without being at the risk of leasing one, at high prices, when required. The one that was hired last season is a splendid boat and could be got very cheaply, probably for about \$900.

The repairs done at Bois Blanc Island last season were of great service in getting eggs. If it had not been done, we could not have secured any eggs there last fall, as the waters have changed, and are entirely different from what they were a few years ago.

WM. PARKER,
Officer in charge, Sandwich Hatchery.

12.—OTTAWA HATCHERY, PROVINCE OF ONTARIO.

Report of the Officer in charge, 1893.

SIR,—I beg to submit the annual report of the operations carried on at the Ottawa hatchery for the year 1893.

On the 14th November, 1892, were received from the Newcastle hatchery 1,100,000 salmon trout eggs, which were carefully laid down in the troughs of the Ottawa hatchery, and in February, 1893, were also received from the Sandwich hatchery 6,000,000 of whitefish eggs. All the eggs, from both places, were received in first-class condition.

Fisheries Report.

The small fry came out strong and healthy in April and May, and were successfully planted in the following places; the whitefish being deposited by Mr. S. Barbeau, and the salmon-trout by Mr. James Robertson, of the Fisheries Department.

WHITEFISH.

Deschesne Lake	680,000
Meaches do	1,640,000
Cornwall, Green Lake.....	480,000
Rivière du Nord, Ste. Scholastique.....	400,000
Lac au Bois Franc.....	160,000
Belleville, Bay Quinté	1,200,000
Picton, Long Lake.....	800,000
	<hr/>
Total.....	5,360,000

SALMON TROUT.

Almonte, Green and Long Lake.....	112,000
Johnston Lake.....	48,000
Meache's Lake.....	136,000
Moseau do	80,000
Charleston do	208,000
Little Sand do	64,000
Deschene do	88,000
St. Francis do	80,000
Lac au Bois Franc.....	32,000
	<hr/>
Total.....	848,000

The Ottawa hatchery will need no repairs for next season's operations, everything being in good order, as troughs, fish carriers, trays, &c., &c., have all been painted and varnished this summer, but as this hatchery is situated at the seat of Government and being visited during every session of Parliament by the Ministers and Members of Parliament and also by thousands of visitors, I would ask that the walls of the hatchery be whitewashed, and the woodwork painted, and also that the electric light be placed in the hatchery as it is much needed during winter months.

On the 23rd October last, according to your instructions, I left for Newcastle, Ont., to take charge of that hatchery, whilst Mr. A. B. Wilmot, the officer in charge and his men were engaged collecting ova at Wiarton, in the Georgian Bay, and on November 21st I returned to Ottawa bringing with me 1,250,000 salmon trout eggs for the Ottawa Hatchery. These eggs were laid down in the troughs and are doing very well at the present time.

Later on will be received from the Sandwich hatchery the ordinary supply of whitefish eggs, which will be placed as usual in the glass incubators.

JOHN WALKER,
In charge of Ottawa Hatchery.

13.—BAY VIEW LOBSTER HATCHERY, PROVINCE OF NOVA SCOTIA.

Report of Officer in charge, 1893.

Herewith is submitted the report of work done at Bay View Lobster Hatchery for the past season.

In consequence of damage being done to the launching wharf, by ice, during the previous winter, there was considerable delay in placing the suction pipes and getting ready for the season's operations.

On the 22nd of May, everything being in good working order, the first lot of lobster eggs were received from the factory of Messrs. Burnham & Morrell, adjacent to the hatchery, and during the time the hatchery was in operation about one-half of the whole number of eggs received, were taken at this factory.

On the 13th June, fry made their first appearance in the troughs, the temperature of the water being 56° Fh., and they continued to hatch rapidly until the 6th July. When the hatchery was closed, having distributed between the Strait of Canso, Guysboro county, and Cape John, Pictou County, and between Souris, Prince Edward Island, and Charlottetown, P.E.I., 153,600,000 young lobsters, this number is as many as can be conveniently handled in this hatchery.

The steamer "Caberfiedh" was employed for 22 days to collect ova and distribute the lobster fry.

The collections of eggs were made from factories at Cape John, McDonald's Cove, Gull Rock, and Pictou Island and out of all the eggs collected about 75 per cent. were hatched.

It was found necessary to have careful and reliable men stationed at three factories for the purpose of collecting and taking care of the eggs until such time as the steamer would call for them: this work proved highly satisfactory.

I devoted as much of my own time as I could spare from the hatchery, in collecting eggs and distributing fry, which gave me an opportunity of visiting a number of factories.

The lobsters were not found as plentiful this year as they have been for the last three or four years. The fish caught after the 1st July are inferior in size and quality to those caught earlier in the season.

The hatchery is now in good working order, having repaired the landing wharf, foundation to building and constructed drain troughs from the water pipes.

The new 6-inch iron suction pipe has proved satisfactory and all expectations fully realized in its working.

If no accident occurs to the wharf during the coming winter an early commencement can be made next season, and another large crop of young lobsters will no doubt be turned out of the hatchery.

During this season the hatchery was visited, and the operations witnessed by some distinguished scientists, notably Professors Rathbone and Smith, of the United States Fishery Commission and Professor Borrachine, of St. Petersburg, Russia. These gentlemen appeared to be highly delighted with their visit and were somewhat surprised at the magnitude of the works.

ALFRED OGDEN,
Officer in Charge.

Fisheries Report.

14.—SELKIRK HATCHERY, PROVINCE OF MANITOBA.

Report of the Officer in Charge, 1893.

SIR,—I have the honour of sending my first annual report as officer in charge of the Dominion Fish Hatchery at Selkirk, of which I was superintendent whilst under construction.

Regarding the proper construction of the building and whilst there has been experienced an unusually cold December, the thermometer being frequently 35 degrees below zero; the precautions taken against frost by the department have proved to be most satisfactory. The back plastering of the walls and the deafening in the floor, with the storm sashes all these making the large hatching room (80 x 40) so warm that the one large stove, with the steam boiler easily keeps the temperature at 50 to 55 degrees which is all that is required. There is now no fear of frost, particularly since the water tank has been closed in upstairs. The jar stands are, where they were ordered to be set, on the south side of the building, and they hold four supply troughs, and four off-take troughs, with eight jar stands, four on each side, each holding 60 jars. The stands are built in the most substantial manner, the troughs are made of the best British Columbia fir, a wood which swells little or any with water, and is stiffer and freer from knots or shakes, than white pine. The joints of the troughs are all put together with cotton strips and white lead and securely nailed so that when filled with water there was no leakage; the shelves for the jars are also substantially made and the troughs were well varnished with parafine varnish. The breeding troughs for the trout trays were also finished and varnished, but the jar stand and trout trough were only primed on the outside and will require a couple of coats of paint before next fall's work begins.

The steam pump is working satisfactorily, giving all the water required. The boiler is in a satisfactory condition, but there is considerable risk to depend upon it to work for six months, night and day, without cleaning, when using this alkali water. An auxiliary upright boiler ought, therefore, to be set up for use in case of accident, or when cleaning the large boiler during the winter.

TAKING EGGS.

In taking eggs here this year everything had to be learned, this hatchery being over a thousand miles from where eggs had been before taken, and being so far away from where ordinary assistance could be got, and as the climate, season, water, etc., here were entirely different, the utmost caution had to be observed, and as the department wished economy to be used in everything, the proper outfit of nets and fishing gear was not purchased for this fall's work in catching parent fish, therefore, the offer of the Manitoba Fish Company to assist in every way possible with their nets, at bare cost, was accepted.

On September 6th, the manager and myself went to the lake to select a place to fish, and decided to set a pound net off Grand Marais, about 15 miles down the lake, on the east side, from the mouth of the river, and 40 miles from Selkirk.

There having been several delays from the stormy weather, the stakes were driven and the pound-nets set on the 4th October, and on the morning of the 5th there were twenty-five fish in the nets. Owing to the storms we did not lift again until the 11th October, when there were 255 fish, 105 male and 150 females. We lifted again on the 14th, got 25 male and 100 females. Lifted again on the 15th, male 34, female 100; next lift 17th October, we got male 70, female 136; only one small female being ripe. These fish were placed in the dummy or cage which was made with slats so the water ran freely through it. We commenced spawning the fish on October 18th and got 8 quarts of eggs; on 19th October, collected 32 quarts of eggs; on 20th October, collected 38 quarts of eggs; on 21st October collected 65 quarts of eggs; on 23rd October, collected 20 quarts of eggs; on 24th October, collected 44 quarts of eggs.

On the 26th it commenced storming and freezing very hard, the frost being heavier than experienced for years at the same date. On the 27th October the river at Selkirk was frozen over in many places. On the evening of the 28th, the tug came up to the hatchery with 32 quarts of eggs; and my assistant sent up word that the fish were getting scarce. As it was freezing up very fast it was decided although the boat was liable to be frozen up, to send her out again with a gang of nets to try and strike the fish in deeper water. The tug could not get through the ice in the slough until broken by the steamer "Colville," when the tug started down the river with 15 gill-nets on the 30th October. and she got back on the night of the 3rd of November with 30 quarts of eggs which had been spawned out of the fish left in the "dummy" cage. Mr. Gignac, my assistant, went to Point Matasse and set the fifteen nets and only got five whitefish, all spent. Mr. Gignac had still 500 fish in the "dummy" net, and remained at Grand Marais to take in the pound-net, barely getting it in before the ice took. The fish had stopped running, all having spawned apparently and gone to deep water. He then spawned out what fish he could from the "dummy" which had been set in six feet of water.

The "dummy" net was frozen in with several inches of ice and many of the confined fish had smothered in it for want of air. Mr. Gignac took all the spawn he could, and having an ox team he came through the woods forty miles to Selkirk getting to the hatchery on 9th November with fifty quarts of eggs. A heavy loss was experienced in these eggs, for, though carefully packed in the trays and boxes, the carriage in an ox-waggon over a rough bush road, had shaken them together and smothered many of them, while some were frozen. Generally it is the 10th of November before the river freezes up. But another year provision must be made to have all the eggs required in the hatchery by, at the latest, the 30th of October.

At present writing the eggs are looking as well as I could desire. The growth is slow owing to the steady temperature at freezing point. I hope to keep them from hatching out until the end of April, when they will be much stronger fry and the lakes will be opening out. The cost of taking eggs is somewhat greater than I anticipated. First, from the very stormy and cold weather encountered, and secondly from the loss of the coarse fish from the net, which would, had we been able to have saved them, have nearly paid for the eggs.

LATOCHE TUPPER,
Officer in Charge.

57 Victoria.

Sessional Papers (No. 11A.)

A. 1894

SUPPLEMENT

TO THE

TWENTY-SIXTH ANNUAL REPORT OF THE DEPARTMENT OF MARINE AND
FISHERIES BEING FOR THE FISCAL YEAR ENDED 30TH JUNE, 1893

MARINE

REPORTS

OF THE

CHAIRMAN OF THE BOARD OF

STEAMBOAT INSPECTION

THE

HARBOUR COMMISSIONERS

FOR

TORONTO, MONTREAL, QUEBEC, THREE RIVERS, BELLEVILLE, NORTH SYDNEY AND PICTOU

THE PILOTAGE AUTHORITIES

THE HARBOUR AND SHIPPING MASTERS, CERTAIN PORT WARDENS, TOGETHER
WITH STATEMENT OF WRECKS AND CASUALTIES

CHIEFLY UP TO THE

31st DAY OF DECEMBER, 1893

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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

1894

[No. 11a—1894.] *Price 15 cents*

Steamboat Inspection.

OTTAWA, 16th May, 1894.

Hon. Sir CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries.

SIR,—I have the honour to submit herewith Supplement to the Twenty-sixth Annual Report of the Marine Branch of the Department of Marine and Fisheries, being for the year 1893, containing the report on merchant shipping, consisting of steamboat inspection and statement of wrecks and casualties, list of certificates granted to engineers of steamboats, and certificates granted to masters and mates; the reports of the harbour commissioners of Toronto, Belleville, Montreal, Quebec, Three Rivers and North Sydney; report of harbour master at Halifax; list of harbour masters; reports of harbour masters generally; reports of pilotage commissioners; reports of port wardens, and list of shipping masters.

I have the honour to be, sir,

Your obedient servant,

WM. SMITH,
Deputy Minister of Marine and Fisheries

Steamboat Inspection.

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Steamboat Inspection

APPENDIX No. 1.

A.—NUMBER of Steam Vessels inspected and not inspected, reported by the Inspectors of Steamboats in the Dominion, and their Gross Tonnage, during the half-year ending 30th June, 1893.

Division.	Number of Shares.	Gross Tonnage.
West Ontario, Huron and Superior	331	68,672·00
Kingston	149	20,003·59
Montreal	181	36,811·53
Quebec	125	34,936·00
Maritime Provinces.....	214	36,791·31
Manitoba, Keewatin and North-west Territories	66	7,664·20
British Columbia.....	134	19,467·83
Total	1,200	224,346·46

B.—DUES and Fees collected on account of Steamboat Inspection during the half year ending 30th June, 1893.

Division.	Amount.
	\$ cts.
West Ontario, Huron and Superior	5,176 65
Kingston	1,701 78
Montreal	1,538 42
Quebec	2,883 84
Maritime Provinces.....	2,227 18
Manitoba, Keewatin and North-west Territories.	731 46
British Columbia.....	1,093 54
Total	15,372 87

C.—NUMBER of Steam Vessels added to the Dominion during the half year ending 30th June, 1893.

Division.	Number of Vessels.	Gross Tonnage.	Registered Tonnage.
West Ontario, Huron and Superior	11	2,072·00	1,363·00
Kingston	6	380·33	287·93
Montreal	19	141·58	91·14
Quebec	3	39·00	26·62
Maritime Provinces.....	5	101·87	63·93
Manitoba, Keewatin and North-west Territories.....	3	112·61	76·58
British Columbia.....	9	1,338·88	707·68
Total	56	4,186·27	1,413·88

APPENDIX No. 2.

STEAM Vessels inspected for the half year ended 30th June, 1893.

WEST ONTARIO AND HURON DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1894.		\$ cts.	
Frank Jackman	Tug.....	April 10.....	39	8 12	Screw, Toronto Bay.
Sontag	Yacht.....	May 10.....	7	5 56	do lakes and rivers.
Maid of the Mist.....	80	do 15.....	62	9 90	do Clifton and Niagara Falls, N. Y.
Abeona	Yacht.....	do 27.....	46	8 68	do lakes and rivers.
			154	32 32	

W. J. MENEILLEY,
Chairman Board of Steamboat Inspection,

Per J. DODDS.

Steamboat Inspection.

STEAM Vessels inspected for the half year ended 30th June, 1893.

WEST ONTARIO AND HURON DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1894.		\$ cts.	
Rosedale		April 6	1,507	125 56	Screw, freight, Great Lakes.
John Hunter		do 7	32	7 56	do tug, Toronto Bay.
Clinton		do 8	430	39 40	do freight, Kingston and Duluth.
Modjeska	720	do 10	678	62 24	Twin-screw, Hamilton & Toronto.
Macassa	539	do 10	459	44 72	do do do
Acadia	25	do 10	806	72 50	Screw, Montreal and Duluth.
C. W. Chamberlain		do 11	385	35 80	do freight, Great Lakes.
Shawanaga		do 11	96	12 66	do tug, Georgian Bay.
Baltic	300	do 13	1,324	113 92	Paddle, Collingwood and Sault Ste. Marie.
Bob Foote		do 13	39	8 20	Screw, fishing tug, Georgian Bay.
Favourite	311	do 13	491	47 28	do Georgian Bay.
City of Midland	380	do 14	748	67 84	do Collingwood and Sault Ste. Marie.
Maud S		do 14	14	6 12	do fishing tug, Georgian Bay.
Pacific	272	do 14	918	81 44	do Collingwood and Sault Ste. Marie.
City of London	157	do 14	516	49 28	do do do
Fred. A. Hodgson		do 15	63	10 04	do fishing tug, Georgian Bay.
Dalton McCarthy		do 15	54	9 32	do do do
Lewis Shickluna		do 17	445	40 60	do freight, Montreal and Duluth.
Superior		do 18	89	12 12	do tug, the lakes.
Grace Darling		do 20	28	7 24	do fishing tug, Georgian Bay.
G. A. Rennie		do 20	14	6 12	do do do
Manitou	300	do 19	497	47 76	Paddle, Penetanguishene & Parry Sound.
Northern Belle	216	do 18	514	49 04	Screw, Georgian Bay.
Mabel McDonald		do 22	42	8 36	do tug, Lake Ontario.
Mary A. Laughlin		do 22	23	6 84	do dredge tug, Toronto Bay.
Manitoba	500	do 24	2,616	217 28	do Owen Sound and Port Arthur.
Alberta	500	do 24	2,282	190 56	do do do
Athabasca	500	do 24	2,269	189 52	do do do
Reliance		do 25	311	29 88	do tug, Great Lakes.
Atlantic	300	do 18	683	62 64	do Owen Sound and Sault Ste. Marie.
Telegram	100	do 20	178	23 84	do Sault Ste. Marie to Michipicoton.
Ethel		May 2	13	6 04	do fishing tug, Georgian Bay.
Cibola	1,176	do 3	961	84 88	Paddle, Toronto and Lewiston.
Ongiara	244	do 3	98	12 84	Screw, Niagara to Lewiston.
Chicora	872	do 3	931	82 48	Paddle, Toronto to Lewiston.
Esperanza		do 4	17	6 36	Screw, pleasure yacht, Lake Ontario.
Minnie Kidd		Not issued	18	1892 & '93	do tug, Fort William.
Mazeppa	300	May 10	146	13 76	do ferry, Toronto Bay.
Carmona	492	do 15	980	86 40	Paddle, Toronto and Rochester.
Mascott	128	do 16	49	8 92	Screw, ferry, Toronto and Island.
Jessie L. McEdwards	100	do 16	21	6 68	do do do do
Kathleen	200	do 16	110	16 80	do do do do do
Arlington	100	do 17	23	6 84	do do do do do
Truant	40	do 17	23	6 84	do Spanish Mills to Webwood
Primrose	900	do 17	189	23 12	Paddle, ferry, Toronto and Island.
Mayflower	900	do 17	189	23 12	do do do do do
Sadie	370	do 18	154	20 32	do do do do do
John Hamlan	172	do 18	37	7 96	Screw, Toronto Bay.
Gertrude	171	do 18	76	11 08	do do do do do
Canadian	340	do 18	231	26 48	Paddle do do do do do
Chicoutimi	278	do 19	110	16 80	do Toronto and Oakville.

STEAM Vessels inspected, &c.—West Ontario Division—*Continued.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1893.		\$ cts.	
Luella	113	May 19	38	8 01	Screw, Toronto and Island.
Viola		do 22	68	10 44	do pleasure yacht, the lakes.
City of Collingwood	513	do 19	1,387	118 96	do Collingwood and Chicago.
Garden City	700	do 25	637	58 96	Paddle, Toronto & St. Catharines.
Petrel		None issued			Screw, Government cruiser for fishery protection.
Gypsy		June 5	20	6 60	do pleasure yacht, Lake Simcoe.
Orillia	234	do 6	135	18 80	do Lake Simcoe.
Longford	40	do 6	53	9 24	do Lake Couchiching.
Comet		do 6	20	6 60	do tug, Lake St. John.
Maud	80	do 7	40	8 18	do Penetanguishene and places in vicinity.
Enterprise	280	do 10	148	19 84	Twin-screw, Lake Simcoe.
Wenonah	96	do 13	161	20 88	Paddle and screw, Burk's Falls to Ahmic Harbour.
Glenrosa	54	do 13	63	10 04	Screw, Burk's Falls, &c.
Emulator		do 13	25	7 00	do tug, Burk's Falls, &c.
Nipissing	385	do 15	275	30 00	Paddle, Muskoka Lakes.
Muskoka	100	do 15	90	12 92	Screw, do
Oriole	40	do 15	75	11 00	do do
Bertha May		do 15	20	6 60	do tug do
Siskiwit		do 19	47	8 76	do do the lakes.
Lillie	40	do 20	50	9 00	do Lake Simcoe.
Geraldine	100	do 21	64	10 28	do vicinity of Parry Sound.
J. D. Hewis		do 21	51	9 08	do tug, Georgian Bay.
Mary Beck		Not issued	16	6 21	do freight do
Halero		June 22	8	5 64	do yacht do
May Bird		do 28	46	8 68	do freight, Lake Ontario.
Medora	228	do 29	299	31 92	do Muskoka Lakes.
Lake Joseph		do 29	28	7 24	do tug do
Kenozha	200	do 21	191	23 28	do do
Mink	40	do 23	13	6 04	do do
			26,995	2,663 28	

JAMES JOHNSTON,
Steamboat Inspector.

Steamboat Inspection.

STEAM Vessels inspected, &c.—West Ontario and Huron Division—*Continued.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expired.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1894.		8 cts.	
Michigan	500	Mar. 17	1,730	146 40	Paddle, Detroit and Windsor.
Ontario	500	do 17	1,615	137 20	do do do
Niagara		April 1	468	42 44	Screw, freight, Kingston and Duluth.
Lakeside	481	do 3	348	35 84	do Toronto and St. Catharines.
Cuba	150	do 6	931	82 48	do Montreal and Duluth.
Ocean	150	do 6	684	62 72	do do Hamilton.
United Lumberman		do 7	399	36 92	do freight, Kingston and Duluth.
Africa		do 8	482	43 56	do do do
Charlton		do 10	261	25 88	do tug, Great Lakes.
W. B. Hall		do 8	608	53 64	do freight, Kingston and Duluth.
Wales		do 11	350	33 00	do tug, Great Lakes.
Evelyn		do 11	85	11 80	do do do
Lurline		do 12	66	10 28	do yacht, Detroit River.
Walter Scott		do 12	26	7 08	do fishing tug, Lake Huron.
Persia	150	do 14	757	68 56	do Montreal & St. Catharines.
Seguin	20	do 14	818	73 44	do Kingston and Duluth.
Erin		do 15	512	40 96	do freight, Kingston and Duluth.
Sylvester Kneeland		do 17	46	8 68	do tug, Welland Canal.
Inerz		do 17	59	9 72	do do
Tecumseh		do 17	840	72 20	do freight, Kingston and Duluth.
Mary		do 18	62	9 96	do tug, Great Lakes.
Hector		do 18	43	8 44	do do do
Wm. Wilson		do 18	12	5 96	do fishing tug, Lake Erie.
Sir S. L. Tilley	10	do 20	1,178	102 24	do Kingston and Duluth.
Augusta		do 19	57	9 56	do tug, Welland Canal.
Harvey Neelon		do 20	65	10 12	do do do
Dominion		do 21	478	43 24	do freight, Kingston and Duluth.
Maggie		do 24	37	7 96	do tug, Welland Canal.
Jane Armstrong		do 24	45	8 52	do do Georgian Bay.
Alert		do 24	47	8 76	do do Welland Canal.
Enterprise		do 25	620	54 60	do freight, Kingston and Duluth.
Lake Michigan		do 25	573	50 84	do freight, Montreal and Duluth.
Metamora		do 25	239	24 12	do tug, Great Lakes.
St. Magnus		do 26	853	73 24	do freight, Kingston and Duluth.
Scotia		do 27	458	41 64	do freight, Georgian Bay and Chicago.
Sea Gull		do 28	41	8 28	do tug, Sydenham and Detroit Rivers.
E. Windsor		do 28	86	11 88	do freight, Sydenham and Detroit Rivers.
Messenger		do 29	15	6 20	do tug, Sydenham and Detroit Rivers.
City of Windsor	100	May 2	511	48 88	do Windsor and Sault Ste. Marie.
Jessie		do 2	118	28 88	do tug, Great Lakes.
Saginaw		do 3	357	33 56	do do do
Home rule		do 4	81	11 48	do do do
City of Chatham	553	do 4	341	35 28	do Chatham and Detroit.
Vick		do 5	13	6 04	do tug, Thames River.
Earl		do 5	18	6 44	do do do
Onaping		do 9	256	25 48	do Great Lakes.
G. P. McIntosh		do 9	58	19 28	do fishing tug, Lake Erie.
City of Dresden	40	do 10	194	23 52	do Windsor and Lake Erie.
John Lee, Sen.	40	do 10	52	9 16	do Wallaceburg and River St. Clair.

STEAM Vessels inspected, &c.—West Ontario Division—*Continued.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1893.		\$ cts.	
Grace Darling.....		May 11....	26	7 08	Screw, tug, Sydenham and Detroit Rivers.
United Empire.....	338	do 12....	1,961	164 88	do Sarnia and Duluth.
Monarch.....			2,017		
Hiawatha.....			163	20 96	
Jas. McKeon.....		May 13....	36	7 88	do tug, Spanish River.
Dolphin.....		do 15....	13	6 04	do do Toronto Bay.
Greyhound.....	478	do 16....	337	34 96	do Toronto and Lorne Park.
Acacia.....	165	do 17....	55	9 41	do Burlington Bay.
Thames.....	300	do 22....	82	11 56	Paddle, London and Spring Bank.
Eurydice.....	546	do 23....	590	55 20	do Toronto and Grimsby.
Island Queen.....	140	do 20....	23	6 84	Screw, Toronto Bay.
Joe. Mac.....		do 25....	44	8 44	do tug, Welland Canal.
Jas. Norris.....		do 25....	50	9 00	do do do
Ella Taylor.....		do 25....	34	7 72	do do do
Maggie R. Mitchell.....		do 25....	40	8 20	do do do
Golden City.....		do 26....	35	10 60	do do do
Maggie A. Bennet.....		do 26....	34	7 72	do do do
Clark Bros.....	40	do 29....	5	5 40	do Toronto Bay.
Joe. Milton.....	200	do 30....	93	12 44	do Pt. Stanley and Cleveland.
Ruby.....		do 30....	72	10 76	do fishing tug, Lake Erie.
Electric.....		June 1....	23	6 84	do yacht, Lake Ontario.
		1893.			
Hope.....	300	Sept. 1....	170	21 60	do Detroit and Windsor.
		1894.			
Imperial.....	206	June 3....	150	20 00	do Kingsville & Pelee Island.
W. M. German.....	40	do 5....	28	7 24	do Rondeau Bay.
					do freight, Montreal and Duluth.
Myles.....		do 13....	1,211	101 88	
Union.....	300	do 14....	267	29 36	Paddle, Ft. Erie & Black Rock.
C. H. Merritt.....	335	do 16....	122	17 68	Screw, St. Lawrence River.
J. W. Steinhoff.....	377	do 17....	312	32 96	do Grimsby & Victoria Park.
Phoenix.....		do 20....	37	7 96	do tug, Lake Huron.
Killarney Belle.....		do 20....	28	7 24	do fishing tug, Lake Huron.
Verbena May.....		do 20....	5	5 40	do tug, Lake Huron.
Elmer.....		Not issued			do do do
John Logie.....		June 21....	29	7 32	do fishing tug, Lake Huron.
A. Chambers.....		do 21....	23	6 84	do do do
Welcome.....		do 21....	21	6 68	do do do
Victoria.....		do 21....	3	5 24	do tug, Lake Huron.
Iris.....		do 21....	9	5 72	do yacht do
Elgin.....		do 22....	16	6 28	do fishing tug, Lake Huron.
Mary Arnott.....		do 22....	8	5 64	do tug, Lake Huron.
Ontario.....		do 22....	57	9 56	do do Great Lakes.
Evelyn.....		do 27....	32	7 56	do fishing tug, Lake Huron.
Sea King.....		do 27....	26	7 08	do do do
W. H. Siebold.....		do 28....	22	13 52	do do do
			26,302	2,481 05	

JNO. DODDS,
Steamboat Inspector.

Steamboat Inspection.

STEAM Vessels not inspected, for the half year ended 30th June, 1893.

WEST ONTARIO AND HURON DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected and Class of Vessel.
			\$ cts.	
A. H. Jennie.....	148	108		Screw, freight. No application.
Hazard.....	34	23		do fishing tug do
Maid of the Mill.....	8	6		do do do
Ivey Alderson.....	39	27		do passenger.
Albani.....	5	4		do do Not running.
A. J. Tymon.....	194	132		do do Certificate not expired.
Lillie Smith.....	275	187		do freight do do
Despatch.....	33	22		do fishing tug do do
Kittie Haight.....	60	28		do tug do do
Snowstorm.....	17	10		do fishing tug. No application.
Enterprise.....	18	13		do do Not expired.
Lottie Maud.....	10	5		do do do
Conservative.....	7	3		do do do
Kingfisher.....	14	9		do do do
Ida Bell.....	6	3		do do do
Nina.....	11	9		do tug do
Willie Scagel.....	22	15		do do No application.
W. S. Ireland.....	105	71		do freight. Not expired.
Ariadne.....	38	26		do tug do
Harry Sewell.....	25	18		do do do
Ripple.....	15	11		do do do
Euna.....	6	4		do do do
City of Mt. Clemens.....	102	69		do freight do
Frankie.....	24	16		do tug do
Byron Terice.....	268	169		do passenger do
St. George.....	21	14		do tug do
Juno.....	210	130		do freight do
Energy.....	116	70		do do do
LaBelle.....	75	58		do do do
R. Kendrick.....	15	12		do passenger do
Minota.....	29	19		do yacht do
Queen.....	7	5		do passenger do
Juno.....	28	19		do fishing tug do
Clucas.....	28	19		do do do
Sea Queen.....	18	12		do do do
Sea Gull.....	19	13		do do do
Anderson.....	16	11		do do No application.
Sarah E. Day.....	5	4		do tug do
A. M. Petrie.....	20	13		do yacht. Not expired.
Alfred Wilson.....	33	22		do tug do
Sea Flower.....	7	5		do do do
Orcadia.....	23	16		do fishing tug. Left this division.
Gordon Jerry.....	124	84		do freight. Not expired.
Arabian.....	1073	770		do do do
Sweet Mary.....	13	9		do tug do
Severn Belle.....	8	5		do do do
Minnie Martin.....	10	7		do do do
Caponaning.....	18	12		do do do
Maggie McLean.....	37	25		do do do
Susan C. Doty.....	26	18		do do do
Tender.....	31	21		do do do
Owen.....	103	68		do freight do
Vera.....	14	12		do tug do
Dominion.....	138	94		do freight do
Nellie Bly.....	6	4		do fishing tug do
Gordon Gauthier.....	27	18		do do do
Ontario.....	1,338	910		do passenger. Not running.
J. C. Clark.....	145	99		do do do
Huron.....	1,052	688		Twin screw, railway car ferry. Not running.
International.....	851	559		do do do
Meteor.....	337	181		Paddle, tug. Not running.
Cecibe.....	11	8		Screw do do
Herbert M.....	26	18		do do do
Mary of Port Stanley.....	4	3		do do do
Conqueror.....	25	17		do do No application.

STEAM Vessels not inspected, &c.—West Ontario and Huron Division—*Continued.*

Name of Vessel.	Gross Tonnage.	Regis-tered Tonnage.	Dues and Fees.	Remarks.
				Why not inspected and class of Vessel.
			\$ cts.	
Harold Gauthier.....	9	16	.....	Screw, fishing tug. No application.
Blondina	46	32	.....	do yacht. Not running.
Rosamond	23	15	.....	do do do
Zephyr	19	11	.....	do do do
Siesta	3	2	.....	do do do
Douglas	5	4	.....	do tug. No application.
Lewis Schickluna.....	16	11	.....	do do Not running.
Mary A. Day.....	45	36	.....	do fishing tug. No application.
Adrelexa	15	10	.....	do yacht do
Nocross.....	20	14	.....	do tug do
Eva Belle.....	10	7	.....	do fishing tug do
Edward Blake.....	22	15	.....	do tug do
Nautilus.....	9	6	.....	do do do
Ocean Lily	3	2	.....	do do do
Spray	15	10	.....	do fishing tug do
W. F. McRae.....	46	31	.....	do tug do
Rescue.....	7	5	.....	do do do
John Williams.....	14	10	.....	do do do
Mayflower.....	14	10	.....	do do do
Waubashene	97	47	.....	do do do
Maganetewan	187	127	.....	do do do
Equal Rights	6	4	.....	do passenger do
H. L. Lovering.....	55	38	.....	do tug. Not expired.
Fred. Davidson.....	43	29	.....	do do No application.
Alford Morrell.....	40	27	.....	do do do
Minnehaha	32	22	.....	do do do
Mizpah	18	12	.....	do passenger. Not expired.
Osprey	39	26	.....	do tug. No application.
Pocahontas	32	20	.....	Paddle do do
A. V. Crawford.....	51	35	.....	Screw do Not expired.
Agnes.....	23	16	.....	do do do
Arbutus.....	49	34	.....	do do No application.
James Clark.....	48	33	.....	do fishing tug. Not expired.
J. H. Jones.....	151	98	.....	do passenger do
Naiad	29	18	.....	do yacht do
Onagonah	19	13	.....	do passenger. No application.
Rosseau.....	53	36	.....	do tug do
Edith May.....	45	31	.....	do passenger do
Southwood	19	13	.....	do tug do
Kate Murray	3	2	.....	do do do
Jennie Wilson.....	7	5	.....	do do Not expired.
Sunbeam	4	2	.....	do do No application.
Ontario.....	11	8	.....	do do Not expired.
Mary Louise.....	64	43	.....	do passenger. Not expired.
Florence.....	27	18	.....	do do do
Excelsior	96	65	.....	do do do
Erastus Wiman	54	36	.....	do do do
Northern.....	99	62	.....	Paddle, tug. Not expired.
Ada Alice	15	10	.....	Screw, passenger. No application.
Adam Ainslie	59	40	.....	do tug. do
Heather Bell.....	20	13	.....	do fishing tug. Not expired.
James Storey	49	35	.....	do tug do
Rival	125	36	.....	Paddle, do do
Delight	26	14	.....	Screw, do do
Vixen	68	53	.....	do do No application.
Edgar P. Sawyer.....	52	41	.....	do do Not expired.
W. A. Rooth.....	52	32	.....	do do do
Alpha	34	23	.....	do do do
Clara Hickler.....	42	32	.....	do do do
Annie Clark.....	51	34	.....	do fishing tug. Not expired.
Hattie Vinton	55	45	.....	do tug do
Advance	72	49	.....	do fishing tug. No application.
Ann Long	45	30	.....	do tug. Not expired.
Bertha Endress	32	24	.....	do do do
Ethel May	4	2	.....	do yacht do
Evangeline.....	24	16	.....	do do Not running.
Frank Reid.....	34	23	.....	do tug. Not expired.

Steamboat Inspection.

STEAM Vessels not inspected, &c.—West Ontario and Huron Division—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected and class of Vessel.
			8 cts.	
Fannie Arnold	73	50	.....	Screw, tug. Not expired.
Garnet	19	12	.....	do do do
Port Elgin Queen	37	25	.....	do do do
George Douglas	42	18	.....	do do do
Home Rule	3	2	.....	do do do
Rover	51	35	.....	do do do
Ripple	5	4	.....	do yacht do
John Harrison	44	30	.....	do tug do
P. M. Campbell	49	33	.....	do freight do
Maggie May	46	31	.....	do tug do
Purvis	13	9	.....	do fishing tug. No application.
Severn	44	30	.....	do tug do
Uncle Jim	11	8	.....	do do do
P. S. Heisordt	45	31	.....	do do Not expired.
Saucy Jim	93	63	.....	do do do
Stella	16	11	.....	do yacht do
Thames	76	52	.....	do freight do
City of Stratford	4	3	.....	do yacht do
Lansdowne	1,571	908	.....	Paddle, car ferry. Not expired.
Great Western	1,080	662	.....	do do
Ranger	8	5	.....	Screw, yacht. Not expired.
Campana	1,679	1,267	.....
Queen of the Isles	40	27	.....
Total	15,221	9,983	.....

STEAM Vessels inspected for the half year ended 30th June, 1893.

WESTERN ONTARIO DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1893.		\$ cts.	
Michigan	500	Mar. 16.	1,729 80	146 40	Windsor and Detroit.
Ontario	500	do 16.	1,615 40	137 20	do
C. W. Chamberlain		April 4.	384 93	35 80	Georgian Bay and Lake Erie ports.
United Lumberman		do 7.	398 91	36 92	Kingston and Duluth.
Africa		do 8.	482 39	43 56	do
W. B. Hall		do 8.	607 70	53 64	do
Niagara		do 10.	468 00	42 44	do
Lakeside	481	do 10.	348 24	53 84	Toronto and St. Catharines.
Rosedale		do 11.	1,506 93	125 56	Kingston and Duluth.
Clinton		do 13.	430 00	39 40	do
Tecumseh		do 15.	839 67	72 20	do
Seguin	20	do 14.	818 07	73 44	do
Baltic	300	do 18.	1,323 77	113 92	Collingwood and Sault St. Marie.
Atlantic	300	do 18.	682 63	62 64	do do
Pacific	272	do 18.	918 08	81 44	do do
Northern Belle	216	do 18.	513 58	48 00	Collingwood and Georgian Bay Ports.
City of Midland	380	do 19.	748 41	67 84	Collingwood and Sault Ste. Marie.
City of London	157	do 19.	515 77	49 28	do do
Favourite	311	do 19.	491 33	47 28	do do
Manitou	300	do 19.	497 11	47 76	Midland and Parry Sound.
Telegram	100	do 20.	197 72	23 84	Sault St. Marie and Parry Sound.
Erin		do 22.	512 22	45 96	Kingston and Duluth.
Dominion		do 23.	478 13	43 24	do
Persia	150	do 22.	756 64	68 56	St. Catharines and Montreal.
Alberta	500	do 24.	2,282 14	190 56	Owen Sound and Port Arthur.
Athabasca	500	do 25.	2,268 63	189 52	do do
Manitoba	500	do 25.	2,615 85	217 28	do do
Enterprise		do 27.	620 42	54 60	Kingston and Duluth.
Sir S. L. Tilley	10	do 27.	1,177 77	102 24	do
Michigan Lake		do 28.	573 28	50 84	Montreal and Duluth.
Acadia	25	do 30.	806 36	72 50	do
Ocean	150		683 72	62 72	Hamilton and Montreal.
L. Shickluna		May 1.	444 81	40 60	Montreal and Duluth.
City of Windsor	100	do 3.	510 52	48 88	Windsor and Sault Ste. Marie.
Chicora	872	do 4.	930 50	82 48	Toronto and Lewiston.
Macassa	539	do 5.	459 06	44 72	Toronto and Hamilton.
City of Chatham	553	do 9.	340 54	35 28	Chatham and Detroit.
Scotia		do 9.	458 33	41 64	Georgian Bay and Cedar Ports.
City of Dresden	40	do 9.	193 87	23 52	Windsor and ports on Lake Erie.
United Empire	338	do 10.	1,960 65	164 88	Sarnia and Duluth.
Mazepa	300	do 11.	145 59	19 65	Hamilton and Burlington.
Modjeska	720	do 11.	678 05	62 24	Hamilton and Toronto.
Maid of the Mist	80	do 15.	61 97	9 96	Clifton and the Falls.
Carmona	492	do 17.	979 93	86 40	Toronto and Rochester.
St. Magnus		do 16.	852 85	73 24	Kingston and Duluth.
Acadia	165	do 17.	55 16	9 41	Burlington Bay.
Cuba	150	do 18.	931 13	82 48	Montreal and Duluth.
Luella	122	do 19.	37 83	8 04	Toronto and Island.
Island Queen	140	do 20.	23 31	6 84	do
May Flower	900	do 20.	189 40	23 12	do
Primrose	900	do 20.	189 40	23 12	do
John Hanlan	172	do 19.	36 96	7 96	do
Canadian	340	do 19.	230 51	26 48	do
Gertrude	171	do 20.	75 54	11 08	do
Sadie	377	do 20.	154 18	20 32	do
Kathleen	200	do 20.	109 82	16 80	do
Thames	300	do 20.	81 72	11 56	London and Spring Bank.
Truant	40	do 25.	23 31	16 84	Spanish Mills and Webwood.
Petrel		do 30.	191 60		All the lakes.
Ongiara	244	do 31.	97 77	12 84	Niagara and Lewiston.
Cibola	1,176	do 31.	961 47	84 88	Toronto and Niagara.
Chicoutimi	278	June 1.	110 47	16 80	Toronto and Oakville.

Steamboat Inspection.

STEAM Vessels inspected, &c.—Western Ontario Division—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1893.		\$ cts.	
Greyhound	478	June 1..	337·03	34 90	Toronto and Lorne Park.
Orillia	234	do 6..	134·51	18 80	Orillia and places on Lake Simcoe.
Longford	40	do 6..	53·29	9 24	do do Couchiching.
Maud	80	do 7..	39·70	8 18	Penetang. and islands in vicinity.
J. L. McEdwards. . .	100	do 8..	21·40	6 68	Toronto and island.
Arlington	100	do 8..	23·37	6 84	do
Mascott	128	do 8..	48·94	8 92	do
City of Collingwood.	513	do 9..	1,387·46	118 96	Collingwood and Chicago.
Clark Brothers.....	40	do 10..	5·06	5 80	Toronto and island.
Eurydice	360	do 10..	589·89	55 20	Toronto and Lake Ontario ports.
Garden City	700	do 12..	637·25	58 96	do do
Myles		do 12..	1,210·63	101 88	Montreal and Duluth.
W. M. German		do 16..	27·85	7 24	Mainland and Rondeau.
Joe Milton.....	200	do 17..	93·30	12 44	Port Stanley and Cleveland.
Wenonah	96	do 20..	160·60	20 88	Burk's Falls, Magnatawan.
Glenrosa	54	do 20..	63·18	10 04	do do
Kenozha	200	do 21..	191·58	23 28	Gravenhurst and Muskoka Lakes.
Nipissing	385	do 21..	275·45	30 00	do do
Oriole	40	do 22..	74·79	11 00	do do
Muskoka	100	do 22..	98·98	12 92	do do
Onaganah	25	do 23..	18·73	6 52	Port Cockburn and Muskoka Lakes.
Mink	40	do 23..	13·32	6 40	Port Carling do
Byron Trerice	378	do 27..	268·04	29 44	Wallaceburg and Ports on Lake Erie.
Imperial	206	do 28..	149·82	20 00	Kingsville and Pelée Island.
W. M. German	40	do 28..	27·85	7 24	Rondeau Bay.
J. W. Stienhoff		do 29..	311·80	32 96	Grimsby and Victoria Park.
	19,918		46,073 67	4,277 20	

THOS. HARBOTTLE,
Hull Inspector.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

WESTERN ONTARIO DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks.	
				Why not inspected, and Class of Vessel.	
			\$	cts.	
Union	266 96	162 86	29 36	Ferry boat.	Inspection not applied for.
John Lee, Sr.	51 89	35 29	9 16	Passenger	do do
Hope	169 96	115 58	21 60	Ferry.	Requires repairs.
Medora	298 51	202 99	31 92	Passenger.	Inspection not applied for.
A. J. Tyman	193 85	132 14	23 52	do	do do
C. H. Merritt.....	121 58	82 68	17 68	do	Certificate not expired.
Ivey Alderson	38 67	26 83	8 04	do	do do
Chippewa	1513 60	763 55	129 12	do	Inspection not applied for.
Geraldine.....	65 44	44 51	10 28	do	do do
Equal Rights.....	5 73	3 90	5 46	do	do do
Uno	75 47	75 47	10 00	Scow	do do
Highland Maid	106 25	72 95	16 48	Passenger.	Certificate not expired.
Shamrock	79 84	55 29	11 40	do	do do
Kennina	41 86	28 47	8 36	do	do do
Minnetonka	68 34	46 47	.....	A new boat.	
Monarch	167 64	105 61	.....	do	
Kakabaka	112 67	74 94	17 04	Tug.	Inspection not applied for.
Cambria	937 25	590 47	82 96	Passenger	do do
J. H. Jones.....	152 11	97 70	17 24	Tug and passenger.	Certificate not expired.
R. Kendrick.....	14 96	12 41	6 25	Tug.	Inspection not applied for.
Lillie	49 53	23 69	9 00	Passenger	do do
Enterprise	148 19	99 27	19 84	do	do do
Mizpah	18 05	12 28	6 44	Tug and passenger.	Inspection not applied for.
Osprey	39 33	25 56	8 12	do	do do
Edith May	44 88	30 52	8 12	Passenger	do do
Excelsior	95 75	65 12	12 68	do	do do
Mary Louise	63 62	43 27	10 12	do	do do
Florence	27 08	18 42	.....	do	do do
Erastus Wiman	53 53	36 41	9 32	do	do do
Queen	6 23	4 51	5 56	do	do do
Arabian	1073 49	770 33	93 84	Freight.	Certificate not expired.
Great Western	1080 33	661 87	94 40	Car ferry	do do
Lansdowne	1570 90	917 81	133 68	do	do do
Juno	209 50	130 41	21 80	Freight	do do
Hiawatha	162 62	101 58	20 96	Passenger ferry.	Certificate not expired.
Lillie Smith.....	302 31	205 57	27 00	Freight	do do
Monarch	2017 41	1371 84	169 36	Passenger	do do
	11465 32	7248 57	1,106 59		

THOS. HARBOTTLE,
Hull Inspector.

Steamboat Inspection.

STEAM Vessels inspected for the half year ended 30th June, 1893.

EAST ONTARIO DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1894.		\$ cts.	
D. D. Calvin		April 5	749 53	65 00	Screw, freight, all lakes.
Armenia		do 5	642 67	36 44	do do
Chieftain		do 5	434 68	39 80	Paddle, tug.
Pierepont	415	do 8	251 98	28 16	do passenger, Trenton and Prescott.
Hero	475	do 10	342 12	35 36	do do do
Maud	390	do 12	292 81	31 44	do do do
Ella Ross	300	do 14	324 88	34 00	do passenger, Brighton and Prescott.
Deseronto	85	do 14	67 91	10 44	Screw, passenger, Trenton and Prescott
Nile		do 14	96 30	12 68	do freight, Rideau Canal.
Rescue	25	do 15	52 29	9 16	do passenger, Trenton and Prescott
Reliance	25	do 15	239 14	27 12	do do and freight, all lakes.
D. R. Van Allen		do 17	317 95	30 44	do freight, all lakes.
Petrel		do 18	345 76	35 68	do tug do
Glengarry		do 19	732 41	63 56	do freight do
Glide		do 19	78 90	11 24	do tug, river.
Jessie Hall		do 19	56 54	9 56	do do
H. F. Bronson		do 22	137 12	15 96	do do
James A. Walker		do 22	183 58	19 72	do tug, all lakes.
David G. Thomson		do 22	185 05	19 80	do do do
Rideau Belle	100	do 24	130 59	18 48	do passenger, Kingston and Ottawa
Hiram A. Calvin		do 24	300 00	29 00	Paddle, tug.
Traveller		do 24	207 52	21 64	do do
William Johnston		do 25	80 65	11 48	Screw do
Lorelei	100	do 26	44 29	8 52	do passenger, Trenton and Prescott.
Resolute	25	do 27	371 86	37 76	do passenger and freight, all lakes.
Nora		do 28	28 13	7 74	do tug.
Alberta		do 28	68 05	10 44	Centre wheel ferry, Bay of Quinté.
Siesta	35	do 28	14 96	6 20	Screw, passenger, Trenton and Prescott.
Alexandria	450	do 29	863 15	77 04	Paddle, passenger, Charlotte and Montreal.
North King	525	May 1	872 95	77 84	do do Lake Ontario.
Algonquin		do 2	1,805 61	149 48	Screw, freight, all lakes.
Antelope	40	do 2	19 59	6 60	do passenger, Trenton and Prescott.
Active		do 3	301 70	29 16	do tug.
Orion		do 5	590 99	52 28	do freight, all lakes.
Richelieu	329	do 6	125 57	18 08	Paddle, passenger, Trenton and Prescott.
Thistle		do 3	36 02	7 88	Screw, fishing tug.
Water Lily		April 27	95 09	12 60	do freight, lake and river.
Maggie May		May 9	29 03	7 32	do tug.
		1893.			
John A. Macdonald		Dec. 30	273 00	26 84	Paddle, tug.
		1894.			
Quebec		May 15	108 31	13 64	Screw, freight.
Columbian	L 400 R 835	do 16	703 90	65 36	do passenger, Toronto and Montreal.
Corsican	400	do 17	1,203 24	104 24	Paddle do do do
Emma Munson		do 18	32 63	7 64	Screw, tug.
Empress of India	680	do 19	579 05	54 32	Paddle, passenger, Toronto and Port Dalhousie.
Reindeer	165	do 19	58 29	9 64	Screw, passenger, Trenton and Prescott.
Varuna	225	do 20	134 04	18 72	do passenger, Brighton and Prescott.
Wherenow		do 22	47 78	8 84	do pleasure yacht.
Frémason		do 6	104 82	13 40	do freight.
Carleton	200	do 23	67 94	10 44	Paddle, passenger, Mississippi River.

STEAM Vessels inspected, &c.—East Ontario Division—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1894.		\$ cts.	
Col. By.....		May 13..	9 31	5 72	Screw, tug.
Ingomar.....		do 26..	22 48	6 76	do yacht.
Ranger.....		do 27..	13 83	6 12	do tug.
Lily.....		do 27..	16 01	6 28	do do
Edmond.....		do 29..	39 10	8 12	do do
John Haggart.....	250	do 29..	201 60	24 16	do passenger, Prescott and Ottawa
Geraldine.....		do 30..	17 90	6 44	do yacht.
James Swift.....	100	do 31..	265 92	29 28	do passenger, Kingston and Ottawa
Wapenao.....		June 1..	4 52	5 40	do yacht.
Princess Louise.....	240	do 2..	114 88	17 20	do passenger, Trenton and Prescott.
Armenia.....	100	do 8..	109 99	16 80	do do Trenton and Dick- inson's Landing.
Outlet Queen.....	40	do 9..	18 45	6 44	do Brighton and Picton.
Nellie Cuthbert.....	100	do 9..	59 03	9 72	do do Prescott.
Ometa.....		do 10..	18 68	6 52	do yacht.
Beaver.....		do 12..	40 88	8 28	do tug.
Annie Gilbert.....	30	do 10..	19 00	6 60	do passenger, Trenton and Picton.
Startled Fawn.....	40	do 12..	25 49	7 08	do do do do
Carmona.....		do 13..	56 08	9 48	do yacht.
Minnie Bell.....		do 17..	21 74	6 76	do tug.
Eva Belle.....		do 22..	10 10	5 80	do yacht.
Marie Louise.....	75	do 27..	15 14	6 20	do passenger, Victoria and Peter- boro.
Upas.....		do 29..	16 71	6 36	do yacht.
Ventura.....		do 30..	6 77	5 56	do do
Joe.....		do 30..	19 27	6 52	do do
			15,972 20	1,701 78	

EDWARD ADAMS,
Steamboat Inspector.

Steamboat Inspection.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

EAST ONTARIO DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. Why not inspected, and class of Vessel.
			\$ cts.	
Olivia Gordon	36 07			Screws, tug.
Sandy	29 57			do
H. C. Curtis	36 19			do
Mona	24 87			do
A. B. Cook	34 17			do
Hubert Larkin	48 73			do
Montmorency	17 81			do
D. P. Dey	11 26			do
Myra	73 21			do
South Eastern	305 31			Screw, passenger, Kingston and Prescott.
Caribou	144 19			do do Montreal.
Gilbert	40 83			Screw, tug.
Triton	11 11			do passenger, Rockport and Cornwall.
Dorothy	10 09			do yacht.
Umbria	42 98			do tug.
C. Anderson	105 18			do survey boat.
Transit	140 81			do passenger, Prescott and Kingston.
Pomona	4 88			do yacht.
City of Belleville	101 17			do passenger, Kingston and Montreal.
Zeila	3 40			Screw, yacht.
Corella	3 81			do
Echo	6 06			do
Spray	4 19			do
Daisy	7 20			Screw, passenger, Rice Lake.
Golden Eye	287 60			Paddle do do
Sunbeam	13 43			Screw, tug. do
Beaver	18 00			do passenger do
Pearl	7 70			do yacht.
Golden City	68 02			Screw, passenger, Victoria & Peterboro' waters.
Undine	13 81			do do do
Sunbeam	111 89			Paddle do do
Mary Ellen	44 50			Screw do do
Eva	33 60			do tug do
Crandella	266 20			Paddle, passenger do
Stranger	28 00			Screw, tug do
Alice Ethel	71 75			Paddle, passenger do
Zetta Bruce	8 75			Screw do do
Dominion	45 88			Paddle, tug do
Waterwitch	9 20			Screw do do
Myrtle	27 46			Paddle do do
Express	3 90			Screw, passenger, Scugog River.
Esturion	118 36			Paddle, pasngr, Victoria & Peterboro' Waters.
Dawn	20 20			Screw do do
Beaubocage	129 00			Paddle do. do
Bella Fair	6 60			Screw, tug do
Maple Leaf	26 08			do passenger do
Vesta	14 17			do yacht.
Bertha	17 64			do passenger, Trenton and Prescott.
Iona	231 53			do freight, all lakes.
Columbian	271 30			Paddle, pasngr, Victoria & Peterboro' waters.
Sarah Daly	24 61			Screw, tug.
Grenada	57 09			do passenger, Kingston and Montreal.
Ivy	7 43			do do Cornwall & Lake St. Francis.
Princess Louise	26 36			do do Kingston and Montreal.
Albert Wright	29 00			Screw, tug.
C. F. Dunbar	32 86			do
Alaska	48 74			Screw, passenger, Kingston and Montreal.
Alert	49 83			do do
Fearless	46 38			do do Trenton and Montreal.
Maud L.	14 05			Screw, fishing tug.
Tropic	8 86			do passenger, Kingston and Ottawa.
Enterprise	60 38			Paddle, tug.
May Flower	4 20			Screw, tug.
Elsie Rcsc	9 83			do yacht.

STEAM Vessels not inspected—East Ontario Division—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks.
				Why not inspected, and class of Vessel.
			\$ cts.	
Nellie.....	6·82	.....	.....	Screw, passenger, Kingston and Ottawa.
Prince Edward.....	18·22	.....	.....	Centre-wheel, ferry, Bay of Quinté.
Anna.....	7·89	.....	.....	Screw, tug.
Pioneer.....	28·07	.....	.....	do passenger.
Anglo Saxon.....	69·01	.....	.....	Paddle tug.
Mary Ethel.....	98·61	.....	.....	Centre-wheel, ferry.
Belle Amelia.....	3·80	.....	.....	Screw, tug.
Naiad.....	17·55	.....	.....	do yacht.
Daisy.....	4·89	.....	.....	do do
Robert Anglin.....	97·18	.....	.....	do freight.
Marquis of Lorne.....	20·19	.....	.....	do yacht.
Bluebell.....	11·97	.....	.....	do do
Total.....	4,031·39	.....	.....

EDWARD ADAMS,
Steamboat Inspector.

Steamboat Inspection

STEAM Vessels inspected for the half year ended 30th June, 1893.

EAST ONTARIO DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1893.		\$ cts.	
Pierrepont	415	April 8..	251 98	28 16	Paddle, Trenton and Prescott.
D. D. Calvin		do 5..	749 53	65 00	Screw, all lakes and rivers.
Armenia		do 5..	642 67	56 44	do do
Maud	390	do 12..	292 81	31 44	Paddle, Trenton and Prescott.
Ella Ross	300	do 14..	324 88	34 00	do Brighton and Prescott.
Deseronto	85	do 14..	67 91	10 44	Screw, Trenton and Prescott.
Rescue	25	do 15..	52 29	9 16	do do
D. R. Vanallan		do 17..	317 95	30 44	Screw, all lakes and rivers.
Hero	475	do 10..	342 12	35 36	Paddle, Trenton and Prescott.
Glengarry		do 19..	732 41	63 56	Screw, all lakes and rivers.
Rideau Belle	100	do 24..	130 59	18 48	do Kingston and Ottawa.
Lorelei	100	do 26..	44 29	8 52	do Trenton and Prescott.
Resolute	25	do 27..	371 86	37 76	Twin-screw, all lakes and rivers.
Alberta	Ferry	do 28..	68 00	10 44	Centre-paddle, Bay of Quinté.
Siesta	35	do 28..	14 96	6 20	Screw, Trenton and Prescott.
Alexandria	450	do 29..	863 15	77 04	Paddle, Charlotte and Montreal.
North King	525	May 1..	872 95	77 84	Paddle, Lake Ontario and River St. Lawrence.
Algonquin		do 2..	1,805 61	149 48	Screw, Duluth and Kingston.
Antelope	40	do 2..	19 59	6 60	do Trenton and Prescott.
Orion		do 5..	590 99	52 28	do all lakes and rivers.
Reliance	25	April 15..	239 14	27 12	Twin-screw, all lakes and rivers.
Richelieu	329	May 6..	125 57	18 08	Paddle, Trenton and Prescott.
Columbian	{ L. 400 R. 835 }	do 16..	703 90	65 36	Twin-screw, Toronto and Montreal.
Corsican	400	do 17..	1,203 24	104 24	Paddle do
Empress of India	680	do 19..	579 05	54 32	do Toronto and Port Dalhousie.
Reindeer	165	do 19..	58 29	9 64	Screw, Trenton and Prescott.
Varuna	225	do 20..	134 04	18 72	do Brighton and Prescott.
Carleton	200	do 23..	67 94	10 44	Paddle, Mississippi River.
John Haggart	250	do 29..	201 60	24 16	Screw, Kingston and Prescott.
James Swift	100	do 31..	265 92	29 28	do Kingston and Ottawa.
Princess Louise	240	June 2..	114 88	17 20	Screw, Trenton and Prescott.
Armenia	100	do 8..	109 99	16 80	do Trenton and Dickinson's Landing.
Outlet Queen	40	do 9..	18 45	6 44	do Brighton and Picton.
Nellie Cuthbert	100	do 9..	59 03	9 72	do Brighton and Prescott.
Annie Gilbert	30	do 10..	19 00	6 60	do Trenton and Picton.
Startled Fawn	40	do 12..	25 49	7 08	do do
Upas		Not gran'd	16 71	6 36	do private yacht only.
Total			12,498 78	1,240 20	

THOMAS DONNELLY,
Inspector of Hulls and Equipments, East Ontario Division.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

EAST ONTARIO DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks and Class of Vessel.
			\$ cts.	
Transit	140 89	92 93		Twin screw, Kingston and Prescott.
City of Belleville	101 17	68 80		Screw, Kingston and Montreal.
Triton	11 11	8 25		do Rockport and Montreal.
Pearl	7 70	5 30		do Trent River.
Daisy	7 20	4 90		do Rice Lake and tributaries.
Beaver	18 00	12 20		do do do
Sunbeam	111 89	83 48		Paddle, Co's of Victoria and Peterborough.
Golden City	68 02	62 15		Screw do do
Undine	13 81	8 03		do do do
Mary Ellen	44 50	30 63		do do do
Zetta Bruce	8 75	4 27		do do do
Alice Ethel	71 75	45 15		Paddle do do
Crandella	266 20	169 50		do do do
Express	3 90	2 66		Screw, Scugog Lake and river.
Esturion	118 36	74 57		Paddle, Co's of Victoria and Peterborough.
Columbian	271 30	159 00		do do do
Dawn	20 20	15 90		Screw do do
Beaubocage	129 00	104 70		Paddle do do
Maple Leaf	26 08	17 74		Screw do do
Jertha	17 64	12 00		do Trenton and Prescott.
Sona	231 53	157 45		do all lakes and rivers.
Southeastern	395 31	268 82		Twin screw, Kingston and Prescott.
Grenada	57 00	43 00		Screw, Kingston and Montreal.
Princess Louise	26 36	17 92		do do do
Ivy	7 43	5 30		do Cornwall and Lake St. Francis.
Alaska	48 74	35 71		do Kingston and Montreal.
Alert	49 83	34 65		do do do
Caribou	144 19	97 49		do do do
Otonabee	49 00	49 00		Scow, Rice Lake and tributaries.
Golden Eye	287 60	181 20		Paddle do do
City of Peterborough	49 50	49 50		Scow do do
Rice Lake	44 41	44 41		do do do
Ark	48 20	48 20		do do do
Paragon	71 00	71 00		do Co's of Victoria and Peterborough.
Lindsay	75 00	75 00		do do do
Consort	16 20	16 20		do Scugog River.
Poloma	121 50	121 50		do Co's of Victoria and Peterborough.
Chemong	103 23	103 23		do do do
Fearless	46 38	31 54		Screw, Kingston and Montreal.
Tropic	8 86	7 28		do Kingston and Ottawa.
Nellie	6 82	3 33		do do do
Prince Edward	18 22	11 84		Centre paddle, Tyendingaga and Sophiasburg.
Pioneer	28 07	19 09		Screw, Bay of Quinté.
Mary Ethel	98 61	56 13		Centre paddle, Bay of Quinté.
Totals	3,490 46	2,530 95		

THOMAS DONNELLY,
Hull Inspector.

Steamboat Inspection.

STEAM Vessels inspected for the year ended 30th June, 1893.

MONTREAL DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
				\$ cts.	
Welshman		April 3, '93	143 00	16 44	Screw, freight.
Harry Bate		do 5, '94	253 71	28 32	do do
Hall		Nov. 25, '93	246 92	27 76	do passenger.
Olive		do 25, '94	213 00	25 04	do do
Booth		April 6, '94	243 73	23 72	Side-wheel, tug.
Dauntless		do 7, '94	7 93	5 64	Screw, yacht.
Sparrow		do 8, '94	25 23	7 00	do tug.
Nosbonsing		do 10, '94	24 53	7 00	do do
Empress		do 11, '94	35 57	7 88	do do
Turtle		Sept. 30, '93	33 82	7 68	Alligator, or cable tug.
Charlotte	25	April 14, '94	12 86	6 12	Screw, passenger.
Emerillon	25	do 14, '94	14 78	6 20	do do
Lottie	25	do 13, '94	10 00	5 80	do do
A. Frazer		do 15, '94	320 00	30 60	Side-wheel, tug.
H. Robinson		do 15, '94	60 90	9 88	Twin-screw do
Dauntless		do 15, '94	342 36	32 36	Side-wheel do
C. B. Powell		do 15, '94	272 34	26 76	do do
G. H. Perley		do 17, '94	122 25	13 16	Twin-screw do
J. L. Murphy		do 18, '94	173 05	18 84	Screw do
Pembroke		do 18, '94	162 00	17 96	Side-wheel do
G. B. Pattee		do 19, '94	30 38	7 40	Screw do
Albert		do 19, '94	216 98	22 36	Side-wheel do
Mansfield		do 19, '94	121 00	17 68	Double-screw, passenger.
Empress	800	Nov. 29, '93	677 60	62 16	Side-wheel do
G. A. Harris		April 28, '94	87 46	16 96	Screw, tug.
J. R. Booth		do 23, '94	131 58	15 56	do do
Archie Stewart		do 23, '94	76 62	11 40	do do
G. H. Notler		do 23, '94	13 53	6 12	do do
Dolphin		do 23, '94	69 66	10 60	do do
T. Osborne		do 29, '94	24 97	7 00	do do
*Emile			11 80	5 96	do passenger.
*E. G. Laverdure			53 55	9 32	do do
Rockland		May 1, '94	77 56	11 24	do tug.
Ada		do 1, '94	28 52	7 24	do do
Ida	475	do 2, '94	247 46	27 76	do passenger.
Paul Smith	300	Nov. 25, '93	293 16	31 44	Side-wheel, passenger.
Melbourne	125	May 6, '94	890 82	79 28	Screw do
Gadabout		do 8, '94	71 86	10 76	do and sailing yacht.
Florence		do 8, '94	61 53	9 96	do tug.
E. B. Eddy		do 8, '92	78 44	11 24	do do
Princess	443	Nov. 25, '93	579 96	54 32	Side-wheel, passenger.
Prince of Wales	500	May 9, '94	610 32	56 80	do do
Maude	350	do 29, '93	269 23	29 52	do do
Charlotte		do 9, '94	59 13	9 72	Screw tug.
Spoon Dredge No. 1		Nov. 29, '93	100 00	13 00	Harbour dredge.
do		do 29, '93	100 00	13 00	do do
do		do 29, '93	100 00	13 00	do do
do		do 29, '93	100 00	13 00	do do
do		do 29, '93	100 00	13 00	do do
Derrick No. 1		do 29, '93	100 00	13 00	do derrick.
do		do 29, '93	100 00	13 00	do do
do		do 29, '93	100 00	13 00	do do
St. Louis		do 29, '93	34 02	7 72	Screw, tug.
St. Peter		do 29, '93	43 52	8 44	do do
M. P. Davis		do 29, '93	110 00	5 88	do do
Hochelaga	765	do 25, '93	418 95	41 50	Side-wheel, passenger.
Longueuil	800	do 25, '93	365 42	37 20	do do
Island Queen	250	do 25, '93	98 00	15 84	Screw do
Grain Elevator No. 12		do 25, '93	183 00	19 64	Harbour floating elevator.
St. George		do 25, '93	67 85	10 44	Screw, tug.

* No certificate received from hull inspector yet.

STEAM Vessels inspected, &c.—Montreal Division—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
				\$ cts.	
*Dama.....					Private yacht.
Reliance.....	50	Nov. 25, '93	78 16	11 24	Side-wheel, passenger.
Sovereign.....	500	May 13, '94	636 29	58 96	do do
Monaco.....		do 23, '94	9 67	5 80	Private steam yacht.
Titania.....		do 21, '94	16 36	6 36	do do
Pearle.....		do 27, '94	5 00	5 40	do do
Nama.....		do 29, '94	30 00	6 40	do do
Dolphin, formerly City of Stratford.....		do 29, '94	6 00	5 48	do do
Bonavista.....	50	do 29, '94	1,306 00	112 48	Freight and passenger, screw.
Sincennes.....		Nov. 25, '93	228 00	23 24	Side-wheel, passenger.
Silver Spray.....		do 25, '93	107 00	13 56	Screw, tug.
Vesta.....		June 1, '94	14 00	6 12	Private yacht.
Juno.....		do 1, '94	17 09	6 36	do
Monitor.....		do 1, '94	332 62	31 64	Side-wheel, tug.
Samson.....		do 1, '94	15 27	6 20	Alligator or cable tug.
Ottawa.....	200	do 10, '94	116 28	17 28	Side-wheel, passenger.
Union.....	40	do 10, '94	75 04	11 00	Screw do
Flora.....		do 10, '94	5 18	5 40	Private yacht.
Camilla.....		July 17, '94	53 94		Screw, passenger.
Quinze.....		do 17, '94	32 00	7 56	Twin-screw, tug.
†H. Trudel.....					Alligator or cable tug.
†McLaughlin's new ship (no name).....					Side-wheel, tug.
Meteor.....	80	June 20, '94	131 81	18 56	Screw, passenger.
Clyde.....	50	Nov. 25, '93	29 00	7 32	do do
Argo.....		June 21, '94	154 06	17 32	Side-wheel, tug.
Dora.....	40	do 21, '94	48 32	8 84	Screw do
†R. Hurdman.....					do do
†D. A. Martin.....					do do
Toneata.....	35	June 24, '94	14 00	6 12	do passenger.
Beaver.....		do 24, '94	13 00	6 04	Alligator or cable tug.
Mattawan.....	60	do 13, '94	22 00	6 76	Screw, passenger.
Madawaska.....		Nov. 25, '93	14 57	6 20	Alligator or cable tug.
D. McLaughlin.....		do 25, '93	22 08	6 76	Centre-wheel do
Janet Craig.....	40	do 25, '93	12 00	5 96	Screw, passenger.
Leon Cyr.....		do 25, '93	15 00	6 20	do freight.
Squaw.....		June 29, '94	21 60	6 76	do tug.
Agnes.....	50	do 30, '94	29 07	7 32	do passenger and freight.
Mildred.....		do 30, '94	15 22	6 20	do tug do
Total.....			13,149 79	1,558 42	

*Not registered or dues or fees paid. †Not registered or fees paid. ‡This vessel has been altered; no fees paid.

Steamboat Inspection.

STEAM Vessels not inspected for the year ended 30th June, 1893.

MONTREAL DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected, and Class of Vessel.
			\$	
Lady of the Lake.....	607 00	369 00		
Le Cultivateur.....	152 00	103 00		
James.....	127 00	31 00		
Hossanora.....	89 41	54 97		
Bonito.....	17 00	12 00		
Glide.....	80 00	53 00		
John.....	35 00	23 00		
Chaffey.....	41 44	29 31		
Thurso.....	20 07	9 09		
H. H. Mixer.....	21 68	9 23		
Garnet.....	152 00	95 00		
Rocket.....	159 00	125 00		
Cacouna.....	1,450 00	930 00		
Coban.....	1,063 00	688 00		
Louisburg.....	1,815 00	1,181 00		
Cape Breton.....	1,764 19	1,108 00		
Derrick No. 4.....	100 00			
do 5.....	100 00			
do 6.....	100 00			
Wm. Paul.....	7 00	4 00		
Grain Elevator No. 1 St. Lawrence.....	83 00	49 00		
Grain Elevator No. 1.....	165 00	102 00		
do do 2.....	170 00	104 00		
do do 4.....	188 00	118 00		
do do 5.....	80 00	47 00		
do do 6.....	170 00	107 00		
do do 7.....	170 00	101 00		
do do 8.....	80 00	47 00		
do do 9.....	172 00	106 00		
do do 10.....	173 00	107 00		
do do 11.....	169 00	103 00		
do do 13.....	173 00	109 00		
do do 14.....	181 00	112 00		
Black Prince.....	1,479 54	960 35		
Bedlington.....	1,379 35	892 36		
Valetta.....	1,382 02	874 12		
Garnet.....	1,471 00	959 00		
Edinburgh.....	1,652 85	1,071 71		
Pocklington.....	1,389 54	885 05		
Sunshine.....	1,589 53	1,002 87		
Filgate.....	263 00	152 00		
Clipper.....	4 00	3 00		
Allie.....	5 00	3 00		
Tim Doyle.....	20 00	14 00		
Agnes McMahon.....	82 00	47 00		
Maggie R. King.....	27 00	18 00		
Plover.....	43 00	30 00		
Gertie.....	17 00	9 00		
Shickluna.....	66 00	33 00		
Ida.....	26 00	7 00		
C. W. Denis.....	14 00	9 00		
Antelope.....	82 00	58 00		
Pioneer.....	37 65	25 60		
Castor.....				
North River.....				
Hiram Easton.....	34 00	28 00		

STEAM Vessels not inspected, &c.—Montreal Division—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks and Class of Vessels.
Lorient.....				
Circassian.....				
E. L. Perkins.....				
Alexandria.....	53 00	37 00		
Volunteer.....	5 00	3 00		
St. Anne.....	25 00	18 00		
Dahinda.....				
Vivid.....				
Charlemagne.....	76 00	52 00		
May Flower.....	18 90	11 00		
Calumet.....	40 00	27 00		
W. F. Logie.....	17 00	11 00		
Asilda.....	23 00	13 00		
W. C. Francis.....	37 00	13 00		
John Thompson.....				
Our Club.....				
Owens.....	156 00	90 00		
Wennona.....				
Mouche-à-Feu.....				
Belmont.....	133 00	84 00		
McLaughlin's No. 1.....				
do No. 2.....				
Enterprise.....				
H. Bonenfant.....	22 00	14 00		
Wild Rose.....	9 90	6 01		
Birdie Jones.....	2 50	2 00		
Naiad.....				
Hurtubisse.....				
R. Stokes.....	14 00	2 00		
John Frazer.....	118 00	99 00		
John A.....	19 70	13 40		
Sir Hector.....	39 72	10 19		
Monarque.....	136 00	85 00		
Windermere.....	35 00	24 00		
Isleway.....	7 00	5 00		
G. H. Millen.....	10 65	7 25		
Tiber.....	1,725 00	1,134 00		
Total.....	23,611 74	14,879 51		

GEO. T. CLIFT,
Steamboat Inspector.

Steamboat Inspection.

STEAM Vessels inspected for the half year ended 30th June, 1893.

QUEBEC DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1894.		\$ cts.	
Polino	50	April 6..	807	72 56	Screw, freight, St. John's, N.F., and Montreal.
Belle	Tug		51	9 08	Screw, tug, Saguenay River.
Lévis	350	April 10..	156	20 48	Screw, ferry, Quebec and St. Romuald.
Otter	123	do 1..	198	23 84	do passenger, Quebec & Natashquan
Miramichi	300	do 13..	702	64 16	Paddle, pass., Montreal & Pictou, N.S.
Berthier	700	do 17..	1,101	96 08	do do Three Rivers
Chambly	600	do 29..	647	59 76	do do Chambly
Cultivateur	730	do 17..	362	36 96	do do Sorel.
Terrebonne	450	do 17..	601	56 08	do do Contreécœur.
Rivière du Loup	150	do 17..	173	21 84	do do L'Assomption
Mouche-à-feu	300	do 17..	214	25 12	do ferry, Sorel and Berthier.
Montmagny	516	do 15..	351	36 08	do passenger, Quebec & Berthier.
Sorel	300	do 19..	158	20 64	do do Sorel & St. Thomas
Dandy	Tug		46	8 68	Screw, Montreal Harbour tug.
T. H. Nasmith	do		49	8 92	do do do
Quebec	800	April 20..	3,056	252 48	Paddle, passenger, Montreal & Quebec
Trois Rivières	1,000	do 20..	1,710	144 80	do do do
McNaughton	Tug		137	15 96	Screw, river tug.
Georgiana	do		53	9 24	do Montreal Harbour tug.
M. F. Pearson	Govt. tug.				do tug attending dredge.
St. James	do				do do do
St. Francis	do				do do do
John Pratt	do				do do do
North	450	April 24..	289	31 12	Paddle, ferry, Quebec and Lévis.
South	450	do 26..	349	35 92	do do do
Florence	Tug		113	14 04	Screw, tug, guif and river.
Beaver	70	May 1..	147	19 76	do passenger, Montreal & Gaspé.
Contest	150	do 1..	231	23 48	Paddle, mail tender, Rimouski.
Admiral	350	do 1..	682	62 56	do passenger, Dalhousie & Gaspé
Anna McGee	Wrecking.		60	9 80	Screw, wrecking schooner, gulf.
Relief	Tug		381	35 48	Twin screw, tug, gulf and river.
La Canadienne	Govt. cruiser.				Screw, gulf fishery protection.
Beaver	Tug		273	26 84	Paddle, tug, Montreal and Bic.
Lord Stanley	do				Twin screw, tug, Montreal and Gulf.
Lake					Screw, tug, do do
Orleans	475	May 6..	181	22 48	do ferry, Quebec and Island of Orleans.
Canada	800	do 1..	2,009	168 72	Paddle, passenger, Montreal and Chicoutimi.
Saguenay	773	do 22..	1,104	96 32	do do do
Constance	Govt. cruiser.				Screw, cruiser in gulf.
Hygeia	125	May 9..	58	12 64	Screw, ferry, Montreal.
Vega	250	April 25..	132	18 56	do do and excursion.
Mersey	Tug				Screw, Quebec Harbour tug.
Hudson	do		158	17 64	Paddle, tug, Montreal and Quebec.
Laprairie	996	May 14..	523	49 84	do ferry, do Laprairie.
Powerful	399	do 1..	382	38 56	do do do Boucherville
St. Anne	45	do 7..	10	5 80	Screw, ferry, Sorel and Berthier.
Ed. Arpin	25		5	5 40	do do do do
Canadian	40	May 16..	26	7 08	do do do Lanoraie.
Rodolphe	Tug		116	14 28	Paddle, river tug.
Passport	400	May 17..	1,034	90 72	do passngr. Montreal & Toronto.
Algerian	400	do 18..	914	81 12	do do do do
Bohemian	775	do 18..	1,138	99 04	do do do Kingston.
Spartan	400	do 18..	1,169	101 52	do do do Toronto.
Montreal	800	do 19..	2,211	184 88	do do do Quebec.
Fearless	Tug				Screw, tug.
Acadian	Freight	May 20..	931	72 48	do freight, Montreal and forcing paddle.
Julia	Tug		101	13 08	Twin screw, tug, Quebec and Montreal
Brothers	526	May 1..	262	28 96	Paddle, passenger, St. Anne & Quebec

STEAM Vessels inspected, &c.—Quebec Division—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1894.		\$ cts.	
Diver.....	Wrecking.		86	11 88	Screw, wrecking schooner, gulf.
Johanna B.....	Tug.....		17	6 36	do tug, Portneaf River.
St. Croix.....	551	May 1..	445	43 60	Paddle, passenger, Ste. Croix & Quebec
St. Louis.....	551	do 1..	428	42 24	do do St. Jean D. do
Etoile.....	591	do 1..	560	52 80	do do do
Thames.....	Freight.	June 20..	1,683	142 40	
Hope.....	Tug.....		19	6 52	Screw, Quebec Harbour tug.
Aurelia.....	do.....		32	7 56	do do
Carolina.....	800	June 9..	969	85 52	Paddle, passenger, Montreal and Chicoutimi.
Two Brothers.....	Harbour	Tug.....	14	6 12	Screw, Quebec Harbour tug.
St. Roch.....	do		18	6 44	do do
St. George..	do		13	6 08	do do
Lady Belleau.....	Wrecking.		81	11 48	Screw, wrecking schooner gulf.
Victor.....	Tug.....		35	7 80	do Quebec Harbour tug.
Frank.....	do.....				Stern-wheel, tug, river.
Dauntless.....	do.....		81	11 48	Screw, tug, Montreal and gulf.
Pilgrim.....	455	May 1..	262	28 96	Paddle, passenger, Quebec and St. Nicholas.
Lillie H.....	Tug.....		12	5 96	Screw, Quebec Harbour tug.
Honke Dore.....	do.....				do do
Rhoda.....	do.....		182	19 56	Paddle, tug, Montreal and Bic.

JOS. SAMPSON,
Steamboat Inspector.

Steamboat Inspection.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

QUEBEC DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected, and Class of Vessel.
			\$ cts.	
Queen ..	369	249	37 36	Not ready, screw ferry Quebec and Lévis.
C. S. Parnell ..	17	12	.....	do screw tug, Quebec Harbour.
Randolph.....	16	14	6 28	do do do
Spray	24	14	6 92	do do do
Deasy	14	10	6 12	do do do
Richelieu.....	33	23	7 64	Did not happen to be in Sorel, screw passenger, Sorel and St. Antoine.
Magnet.....	1,029	586	90 32	Not ready, paddle passenger, Montreal and Hamilton.
Polaris.....	533	336	50 64	
Pilot.....	426	269	42 08	Not ready, screw ferry, Quebec and Lévis.
Fairy	16	9	6 28	Not having time before, screw, Quebec Harbour tug.
Ida	5			Not ready, screw passenger, on Lake St. Joseph.
Mistassini.....	249	157		Not ready, paddle steamer on Lake St. John.
Peribonca.....	144	91		do paddle tug, Lake St. John.
Undine.....	19	15		do screw do do
Swan.....				do screw tug Lake Edouard.
Oak Bay.....	27	23	7 16	do paddle tug, Restigouche River.
Christiana.....	57	36	9 56	do do do
Frame.....	19	8	6 52	do ferry do do
Vulcan.....	22	15		do screw ferry.
Commodore Holiwell ..	9	3		do Quebec Harbour tug.
Swallow.....	3	2		do do
Marie Louise.....	99	63	12 92	do paddle tug, Bertsimis.
St. Louis.....	5	3	5 40	do screw do
Forest.....	26	18		do do Sault au Cauchon.
Thor.....	322	203	30 76	do paddle tug, Chicoutimi.
Kinogami.....	21	14	6 68	do sc. ew tug, do
Coukoo.....	6	4		do do do
Activity.....	22	15	6 76	do do Quebec Harbour.
Blandford.....	65	27	10 20	do paddle tug.
Five Brothers.....	10	7		do screw, Quebec Harbour tug.
Almanda.....	11	7		do do do do
Alma.....	12	8		do do do do
L'Ami.....	16	8		do do do do
Bourgeois.....	94	59		do paddle ferry, Three Rivers.
St. George.....				do do tug.
Glasias.....	109	74		do screw ferry.
Lena.....	22	15		do do Lake Megantic.
Isle aux Noix.....	20	14		do screw tug, do
John Young.....	164	103		do paddle tug, Sorel and Chambly.
Lucie.....	25	16		do do Nicolet.
Maud.....	54	34		do do Three Rivers.
Batiscan.....	40	17		do do Batiscan.
Como.....	75	47		do paddle ferry, Three Rivers.
Arthur.....	38	18		do do tug, do
Anglesia.....	153	97		do do Quebec.
	4,233	2,743	349 60	

JOSEPH SAMPSON,
Steamboat Inspector.

STEAM VESSELS inspected for the half year ended 30th June, 1893.

QUEBEC AND MONTREAL DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1893.		\$ cts.	
Otter.....	123	Dec. 1...	198	23 84	Screw, pass. and freight, Quebec and Natashquan.
Terrebonne.....	450	Nov. 25...	601	56 08	Paddle, pass., Montreal and Contre-cœur.
Chambly.....	600	do 25....	647	59 76	Paddle, pass., Montreal and Chambly.
Cultivateur.....	730	do 25....	362	36 96	do ferry, Montreal and St. Helen's Island.
Sorel.....	300	do 25....	158	20 64	Paddle, ferry, Sorel and Berthier.
Berthier.....	700	do 25....	1,101	96 08	do pass., Montreal and Berthier.
Quebec.....	800	do 25....	3,056	252 48	do do do Quebec.
Trois-Rivières.....	1,000	do 25....	1,710	144 80	do do do Ste. Anne's.
Ed. Arpin.....	25	do 25....	5	5 40	Screw, ferry, Sorel and Berthier.
Longueuil.....	850	do 25....	365	37 20	Paddle, do Montreal and Longueuil.
Hochelaga.....	775	do 25....	418	41 44	do do do Boucherville.
Island Queen.....	250	do 25....	98	15 84	Srew, ferry, Montreal and Longueuil.
Hosanna.....	200	do 25....	89	12 12	do do do do
Princess.....	443	do 25....	579	54 32	Paddle, pass., Montreal and Carillon.
Maud.....	350	do 25....	269	29 52	do do do do
Filgate.....	658	do 25....	263	29 04	do do do Beauharnois.
Reliance.....	50	do 25....	78	11 24	Paddle, ferry, Lachine and Caughnawaga.
		1894.			
Chaffé.....	50	May 16....	42	8 36	Screw, ferry, Valleyfield and Lancaster.
Union.....	40	do 20....	75	11 00	Screw, ferry, Pembroke and Isle Allumette.
Ottawa.....	200	do 20....	116	17 28	Paddle, pass., Pembroke and Des Joachims.
Mansfield.....	50	Notcertificated by me.	121	17 68	Screw, ferry, Ottawa and Gatineau Point.
Emile.....	92	do ..	12	5 96	Screw, ferry, Ottawa and Hull.
E. G. Laverdure.....	100	do ..	54	9 32	do pass., Ottawa River and Rideau Canal.
		1893.			
Empress.....	800	Nov. 25....	677	62 16	Paddle, pass., Ottawa and Grenville.
Mildred.....	Freight.	do 25....	15	6 20	Screw, freight, Buckingham and High Rock.
		1894.			
Agness.....	50	May 23....	29	7 32	Screw, pass., Buckingham and High Rock.
		1893.			
Thurso.....	50	Nov. 25....	20	6 60	Paddle, ferry, Thurso and Clarence.
		1894.			
Bonito.....	30	May 25....			Screw, ferry, Calumet and L'Original.
Glide.....	50	do 25....			do do do Hawkesbury.
		1893.			
Sovereign.....	688	Nov. 25....	637	58 96	Paddle, pass., Montreal and Carillon.
		1894.			
John.....	50	May 25....			do ferry, Carillon and Pointe Fortune.
		1893.			
Gatineau.....	300	Nov. 25....	293	31 44	Paddle, pass., Montreal and Valleyfield.
Spartan.....	400	do 25....	1,169	101 52	Paddle, pass., Montreal and Toronto.
Algerian.....	400	do 25....	914	81 12	do do do do
Passport.....	400	do 25....	1,034	90 72	do do do do
Hygeia.....	125	do 25....	58	12 64	Screw, pleasure yacht, Montreal and Sorel.
Richelieu.....	141	do 25....	33	7 64	Screw, pleasure yacht, Montreal and St. Hilaire.
Laprairie.....	997	do 25....	523	49 84	Paddle, ferry, Montreal and Laprairie.
		1894.			
Mattawa.....	60	May 18....	22	6 76	Screw, pass., Lake Temiscamingue.
Melbourne.....	125	June 12....	891	79 28	do do and freight, Montreal and Duluth.
		1893.			
Carolina.....	800	Nov. 25....	969	85 52	Paddle, pass., Montreal and Chicoutimi.

Steamboat Inspection.

STEAM Vessels inspected, &c.—Quebec and Montreal Division—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1894.		\$ cts.	
Thames	Freight.	June 19 1893.	1,683	142 64	Screw, freight, Montreal and Sydney.
Orleans	475	Nov. 25	181	22 48	do ferry, Quebec and Island of Orleans.
Lévis	350	do 25	156	20 48	Screw, ferry, Quebec and St. Romuald.
Montmagny	516	do 25	351	36 08	Paddle, pass., Quebec and Berthier.
North	450	do 25	289	31 12	do ferry, do Lévis.
South	450	do 25	349	35 92	do do do do
Brothers	526	do 25	262	28 96	do pass., Quebec and Ste. Anne de Beaupré.
St. Louis	541	do 25	560	52 80	Paddle, pass., Quebec and St. Jean d'Eschaillon.
Pilgrim	455	do 25	262	28 96	Paddle, pass., Quebec and St. Nicholas.
Etoile	591	do 25	560	52 80	do pass., Quebec and St. Jean d'Eschaillon.
Ste-Croix	541	do 25	445	43 60	Paddle, pass., Quebec and Ste. Croix.
Bohemian	500	do 25	1,138	99 04	do Montreal and Kingston.
Canadien	40	do 25	26	7 08	Screw, pleasure yacht, Montreal and Sorel.
Cacouna	Freight.	1894. July 24	1,451	124 08	Screw, freight, Montreal and Cape Breton.
Beaver	70	May 1 1893.	147	19 76	Screw, pass. and freight, Quebec and Gaspé.
Admiral	350	Nov. 25	682	62 56	Paddle, pass., Dalhousie and Gaspé.
Canada	800	do 25	2,009	168 72	do Montreal and Chicoutimi.
Contest	150	do 25	231	26 48	Paddle, pass., mail tender, Rimouski.
Montreal	800	do 25	2,211	184 88	
Mouche-à-feu	300	do 25	214	25 12	
Miramichi	300	do 25	727	66 16	Paddle, pass. and freight, Montreal and Pictou.
Rivière du Loup	150	do 25	173	21 84	Paddle, ferry, Varennes and L'Assomption.
Saguenay	773	do 25	687	62 96	Paddle, pass., Montreal and Chicoutimi.
Ste-Anne	45	do 25	10	5 80	Screw, ferry, Sorel and Berthier.
Polino	30	1894. May 1	807	72 56	do pass. and freight, Montreal and Cape Breton.
Polaris	400	July 26	533	50 64	Screw, ferry, Quebec and Lévis.
Pilot	350	do 28	426	42 08	do do do
Queen	350	do 27	367	37 36	do do do
			34,506	3,246 48	

PIERRE BRUNELLE,
Hull Inspector.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

QUEBEC AND MONTREAL DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.		Remarks. Why not inspected and class of vessel.
			\$	cts.	
Mayflower	18	11			Screw, pleasure yacht, not running this year.
Bourgeois	94	59			Paddle, ferry, had not sufficient time to do so.
Glacial	109	74			Screw, do do do
Bonenfant	22	13			Paddle, do not ready for inspection.
Cape Breton	1,764	1,108			Screw, freight, absent when she was in Montreal.
Louisburg	1,816	1,182			do do do
Como	75	47			Paddle, ferry, not ready for inspection.
Frances	19	7	6	52	do had not sufficient time.
Greetlands	1,091	702	95	28	Screw, passenger, absent when she was in Montreal.
Hall	247	136			do freight, not ready for inspection.
Harry Bates	254	143	28	32	do do do
Lena	22	14			do ferry, had not time.
Mistassini	249	156			Paddle, ferry, not ready.
Peribonca	146	90			do do do
Undine	17	15			Screw do do
Ida	5	2			do do do
Newfoundland	919	568			Screw, freight, she is out of my district this year.
Tiber	1,736	1,134	146	88	do passenger, not ready for inspection.
Vulcan	22	15			do ferry, had not time to do so.
James	138	43	19	04	Paddle, do not ready for inspection.
Vega	132	88	18	56	Screw do do
Acadian	931	596	79	38	do freight do
Bonavista	1,306	836	112	48	do passenger and freight, had not time to do so.
Olive	213	124	25	04	do do not ready.
John Fraser	118	99			do passenger, not ready.
Meteor	132	115	18	56	do do had not time to inspect her before.
Clyde	29	26	7	32	do do do do
Dora	48	44	8	84	do do do do
Argo	154	96	17	32	Passenger, freight, had not sufficient time to do so.
D. A. Martin	47	44	8	76	Screw, passenger do do
Emerillon	15	13	6	20	do do do do
Charlotte	14	9	6	12	do do do do
Lottie	10	9	5	80	do do do do
Toneata	14	10	6	12	do do do do
Janet Craig	12	5	5	96	Screw, ferry, not ready when I was there.
Lady of the Lake	607	369	56	56	Paddle, passenger, had not sufficient time to do so.
Powerful	382	188	38	56	do ferry, she was not ready.
Le Cultivateur	152	103	20	16	do do do do
Magnet	1,029	586	90	32	do passenger do do
Prince of Wales	610	344	56	80	do do do do
Rocket	321	159	33	68	do do do do
Coban	1,063	688	93	04	Screw, passenger and freight, was absent when she was in Montreal.
Garnet	152	30	20	16	Paddle, passenger, she was not ready.
Total	16,254	10,100	1,031	78	

PIERRE D. BRUNELLE,
Hull Inspector.

Steamboat Inspection.

STEAM Vessels inspected for the half year ended 30th June, 1893.

MARITIME PROVINCES DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
				\$ cts.	
Yarmouth	350	Jan. 21, '94.	1,432 16	124 16	Screw, passenger, Boston and Yarmouth.
Halifax	400	Feb. 4, '94.	1,738 45	147 04	do do Halifax and Boston.
St. Michael		do 13, '94.	39 20	8 12	do tug.
Goliath		Mar. 3, '94.	146 83	16 76	do do and wrecker.
Ralph E. S.		do 23, '94.	27 82	7 24	do fish-boat.
Collector	126	do 28, '94.	52 02	9 16	do passenger, Halifax Harbour.
City of Ghent	40	April 1, '94.	198 64	23 92	do do Nova Scotia Coast.
A. C. Whitney		do 3, '94.	62 67	10 04	do tug.
City of St. John	130	Dec. 1, '93.	709 12	64 72	Paddle, passenger, Halifax and Yarmouth.
Boston	320	April 6, '94.	1,694 50	143 52	Screw, passenger, Yarmouth and Boston.
Alpha	20	Mar. 16, '94.	306 91	32 48	Screw, passenger, Halifax, Yarmouth and St. John.
Blue Hill	100	Dec. 1, '93.	195 83	20 60	Twin-screw, passenger, Yarmouth and Liverpool.
St. Olaf	150	do 17, '93.	305 27	32 40	Screw, passenger, Pictou, Cape Breton and Magdalen Island.
St. Lawrence	350	Apl. 12, '94.	845 63	75 60	Paddle, passenger, Pictou, Summerside and Shediac.
Nereus		do 15, '94.	16 39	6 26	Screw, yacht, Halifax Harbour and Coast.
Halifax			338 42	35 04	Paddle, ferry, passenger.
Fastnet	50	Apl. 20, '94.	337 71	35 04	Screw, passenger, Halifax and Prince Edward Island.
Sir C. Ogle			126 09	18 08	Paddle, fumigating ship, Halifax Harbour.
Weymouth			153 93		Screw, passenger.
Harlaw	75	Apl. 5, '94.	451 36	44 08	do do Halifax, Cape Breton and Newfoundland.
Chester		do 27, '94.	79 50	11 40	do tug, Bay of Fundy.
Avon	130	do 25, '94.	64 66	10 12	do passenger, Avon River and Minas Basin.
Scotia		do 28, '94.	41 58	8 36	do tug, Avon River.
Hiawatha	300	do 25, '94.	229 79	26 40	do passenger, Hantsport, Windsor and St. John.
Rob Roy		do 28, '94.	13 97	6 12	do water boat, Avon River and Minas Basin.
W. M. Weatherspoon			59 29	9 72	do passenger, Minas Basin.
Acadia			520 00		Government cruiser, inspected May 6th, 1893.
C. M. Winch		May 9, '94.	87 72	12 04	Screw, tug, Little Glace Bay and Halifax.
Dartmouth	700	do 2, '94.	311 23	32 88	Paddle, ferry, passenger, Halifax and Dartmouth.
Rimouski	70	do 12, '94.	124 70	18 00	Screw, passenger, Mulgrave, Canso and Port Hood.
Evangeline	85	Dec. 16, '93.	78 74	11 32	do passenger, Kingsport and Parrsboro' N.S.
Pinafore		May 15, '94.	25 86	7 08	do tug, Annapolis Basin.
Zuleika		do 22, '94.	12 38	5 96	do yacht, Halifax Harbour.
Bessie and Harry		do 19, '94.	22 00	6 76	do water boat do
Southport	300	June 1, '94.	239 92	27 20	Paddle, ferry, passenger, Charlottetown, East and West River.
Wm. Aitken		do 1, '94.	74 87	11 00	Screw, tug, Coast.
May Queen	35	do 1, '94.	35 92	10 88	do passenger, Charlottetown, P.E.I., Harbour.
Electra	30	do 1, '94.	106 96	16 48	do passenger, Prince Edward Island and Pictou, N.S.
Jacques Cartier	300	do 2, '94.	379 96	38 40	Paddle, passenger, Charlottetown, Orwell, Crapaud and East River.

STEAM Vessels inspected, &c.—Maritime Provinces Division—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.		Remarks.
				\$	cts.	
T. A. Stewart.....		do 2, '94.	35·94	7	88	Screw, freight and tug, Charlotte-town, P.E.I.
Elfin.....	200	do 1, '94.	122·42	17	76	Paddle, ferry, passenger, Charlotte-town and Southport.
Northumberland....	350	do 5, '94.	1,255·43	108	40	Twin-screw, freight and passenger, Prince Edward Island and Pictou, N.S.
Fred. M. Batt.....		do 6, '94.	59·90	9	72	Screw, tug, Prince Edward Island and Coast.
Montague.....	250	do 6, '94.	129·55	18	32	Paddle, ferry, passenger, Georgetown and Montague.
Frank C. Batt.....	40	do 9, '94.	32·90	7	56	Screw, ferry, passenger, Summer-side and Baddeck.
Alameda.....		do 9, '94.	33·93	7	72	do tug and freight, Prince Edward Island.
Leonora.....		do 17, '94.	5·00	5	40	do yacht, Halifax Harbour.
Fanchon.....		do 22, '94.	95·66	12	60	Paddle, tug, St. John River.
Ada.....		do 22, '94.	3·66	5	32	Screw, yacht do
Florenceville.....	270	Nov. 15, '93.	185·14	22	80	Stern-wheel, ferry, passenger, Frederickton and Woodstock.
Ernest.....		June 22, '94.	12·58	5	96	Screw, tug, St. John River.
Eva Johnston.....		do 23, '94.	15·77	6	28	do do
Bismarck.....			49·04	8	92	Paddle, tug, St. John River.
Nelson.....	100	June 26, '94.	64·34	10	12	Screw, passenger, Miramichi River.
St. Andrew.....		do 24, '94.	76·64	11	08	do tug do
Mascott.....		do 26, '94.	70·50	10	60	do do do
Sybella H.....	160	do 26, '94.	70·68	10	60	Paddle, ferry, passenger, Chatham and Moorfield, N.B.
Sarcelle.....		do 27, '94.	21·68	6	68	Screw, tug, Miramichi River.
St. George.....		do 27, '94.	160·57	17	80	Paddle, tug do
Miramichi.....	60	do 27, '94.	75·18	11	00	Screw, passenger do
Grip.....		do 27, '94.	4·81	5	40	do tug do
St. Nicholas.....	60	do 28, '94.	60·20	9	96	do passenger do
Laura.....		do 28, '94.	13·55	6	12	do tug do
Marion.....			11·57	5	96	do yacht do
Zulu.....		June 28, '94.	17·60	6	44	Paddle, tug do
Rustler.....	170	do 28, '94.	77·47	11	16	do passenger do
Loyalist.....		do 29, '94.	17·57	6	44	do tug do
Lady Dufferin.....	75	do 28, '94.	47·48	8	76	do ferry, New-astle and Chatham Head.
Bessie.....		do 29, '94.	5·18	5	40	Screw, fish-boat, Miramichi River.
Utopia.....		do 30, '94.	25·00	7	00	Paddle, tug, Bathurst Harbour.
	5,846		14,480·93	1,399	34	

DOUGLAS STEVENS,
Steamboat Inspector

Steamboat Inspection.

STEAM Vessels inspected for the year ended 30th June, 1893.

MARITIME PROVINCES DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
				\$ cts.	
Edna R.		Jan. 5, '94	49.66	8 92	Screw, tug and fish boat.
Island Gem		do 6, '94	15.62	6 28	do do
Dominion.....	135	Feb. 2, '94	594.18	55 52	do passenger, St. John, N.B., Yarmouth and Halifax, N.S.
Captain		do 3, '94	68.43	10 44	do tug.
La Tour	75	do 11, '94	154.43	20 32	do passenger, Yarmouth and Bar- rington.
Marina.....		do 11, '94	32.46	7 56	do tug.
Waring		do 17, '94	28.74	7 32	do do
Maggie		Mar. 8, '94	21.43	6 68	do do
Fannie.....		do 14, '94	33.44	7 64	do do
Storm King.....		do 15, '94	107.87	13 56	do do
Star.....	300	Dec. 10, '93	461.03	44 88	Paddle, passenger, St. John, N.B., and Washadamoic Lake, Q.C.
Sea King.....		April 10, '94	128.63	15 32	Screw, tug.
Hercules.....		do 10, '94	87.11	11 96	do do
New City		do 10, '94	78.38	11 24	do do
Admiral.....		do 12, '94	158.20	17 64	Paddle do
Hero.....		do 12, '94	127.60	15 16	do do
City of Monticella ..	350	do 14, '94	1,033.65	90 64	do passenger, St. John, N.B., Digby and Annapolis, N.S.
Clifton	150	Dec. 10, '93	138.21	19 04	Stern-wheel, passenger, St. John, N.B., and Hampton, King's Co.
Springfield.....	144	do 10, '93	232.73	26 56	do passenger, St. John, N.B., and Belle Isle.
G. D. Hunter.....		April 17, '94	67.97	10 36	Screw, tug.
Chaupion.....		do 22, '94	190.14	20 20	Paddle do
W. E. Vroom.....	24	do 25, '94	10.05	5 80	Screw, ferry, St. John, north and Lancaster.
David Weston	450	Dec. 10, '93	765.15	69 20	Paddle, passenger, St. John, N.B. and Fredericton.
Fred. Clinch.....		April 28, '94	23.87	6 84	Screw, tug.
Lillie Glasier.....		do 29, '94	209.31	21 72	Paddle do
Arcadia	12	May 4, '94	61.64	9 96	Screw, passenger, Picton, Margaree, Port Hood, Mabou, Cape George.
Dalsey.....		do 4, '94	10.74	5 80	do tug.
J. B. Hamblin.....		do 5, '94	31.71	7 56	do do
Eldon		do 5, '94	37.91	8 04	do freight and fish boat.
Egerton	165	do 6, '94	112.10	16 96	Paddle, passenger, New Glasgow to Picton.
Olivette	250	Dec. 10, '93	318.34	33 44	do passenger, St. John to Fred- erickton.
Tourist.....	25	May 15, '94	11.78	5 88	Screw, yacht.
Novelty		do 16, '94	42.66	8 36	Paddle, tug.
Hope		do 16, '94	315.77	29 40	do do
Electric		do 18, '94	3.74	5 32	Screw do
May Queen.....	330	Dec. 10, '93	539.40	51 12	Paddle, passenger, St. John and Sal- mon River, Queen's Co.
Marguerite.....		Sept. 30, '93	19.66	5 80	Screw, yacht.
Lillie.....		May 27, '94	71.64	10 76	do tug.
Martello.....		June 3, '94	18.78	6 44	do do
Maggie Miller	150	do 2, '94	104.66	16 32	Paddle, ferry, Milledgeville and Melk ish Ferry, N.B.
Maggie M.....		do 2, '94	65.78	10 20	Screw, tug.
Winnie.....		do 5, '94	12.46	5 96	do do
Amanda Green		do 6, '94	19.66	6 52	do do
Wee Laddie.....		do 8, '94	16.60	6 28	do do
Arbutus.....	86	do 9, '94	46.76	8 76	do passenger, Den Island, Cam pobello and St. Stephen.

STEAM Vessels inspected, &c.—Maritime Provinces—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
				\$ cts.	
Westport.....	25	June 21, '94	80·06	11 40	Screw, passenger, Westport, intermediate ports and Yarmouth.
Tusket		do 20, '94	3·07	5 24	do tug.
Norman.....		do 26, '94	46·87	8 68	do do
Aid		do 29, '94	98·55	12 84	do wrecking boat.
Total	2,671		6,908·66	827 84	

W. L. WARING,
Steamboat Inspector.

Steamboat Inspection

STEAM Vessels not inspected for the half year ended 30th June, 1893.

MARITIME PROVINCES DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected, and Class of Vessel.
			\$ cts.	
Coila.....	325 45	161 79		Time not up; screw, freight.
Rescue.....	124 09	84 92		do do wrecker.
Mic-Mac.....	150 63	102 30		do do paddle, ferry.
Chebucto.....	108 33	65 28		Laid up do
Lunenburg.....	265 55	113 11		Time not up; screw, passenger.
Arrow.....	10 02	9 92		do do yacht.
Robbie Burns.....	88 93	73 18		Getting new boiler; screw, lighter.
Highland Mary.....	73 73	50 14		Time not up do
Salvor.....	44 93	34 90		Laid up do
Carroll.....	1372 29	821 97		Time not up; screw, passenger.
Bridgewater.....	207 79	118 95		do do
Premier.....	373 56	187 77		Out of District do
Argus.....	26 74	18 96		Screw revenue cutter.
Mascott.....	22 88	15 05		Chartered by Imperial Government, screw, tug
Meadow Flower.....	6 56	4 46		
St. Pierre.....	496 44	275 15		Time not up; screw, passenger.
Delta.....	871 21	549 71		do freight.
Henry Hoover.....	54 64	37 16		do tug.
Gambrius.....	28 36	19 23		do lighter.
Water Boat.....	6 17	2 02		Laid up; screw, water-boat.
Havana.....	470 98	245 86		do for repairs; screw, passenger.
Dorcas.....	215 34	119 78		Time not up; screw, tug.
Worcester.....	1332 56	796 37		do passenger.
Britannia.....	1484 55	672 10		Out of district; screw, passenger.
Annie.....	42 12	28 64		Time not up; screw, water-boat.
Acadia.....	74 21	66 53		Laid up do passenger.
Glencoe.....	32 21	24 53		Time not up do ferry.
David Duncan.....	20 59	10 58		do do tug.
Wenola.....	25 10	17 10		Time not up; screw, tug.
Freddie V.....	26 69	12 54		do do
John L. Cann.....	142 08	62 60		do do
Carrie.....	14 83	7 37		do do fish-boat.
Yuba.....	12 04	6 01		do do passenger.
Anticosti.....	19 00	15 98		Out of port; screw, fish-boat.
La Have.....	49 27	34 01		Time not up; screw, tug.
Mayflower.....	5 92	2 99		do fish-boat.
Fairy.....	5 07	2 72		do tug.
Alice.....	15 77	11 72		Out of port; screw, tug.
Shannon.....	75 11	51 07		Inspection not applied for; screw, tug.
Ellida.....	37 52	25 51		Time not up; screw, yacht.
Maple Leaf.....	129 06	81 31		do paddle, ferry.
Elsie.....	22 14	15 06		do screw, tug.
Owangoody.....	294 75	98 81		Not running; paddle, passenger.
Bertha.....	29 79	13 81		Laid up for repairs; screw, tug.
St. John.....	47 28	32 15		Time not up do
Bellisle.....	155 44	97 93		do stern wheel, passenger.
Drigo.....	70 13	47 69		do screw, tug.
Neptune.....	71 15	48 38		do do
Flushing.....	257 09	174 82		do screw, passenger.
Tangent.....	35 74	24 30		do twin screw, tug.
Peri.....	11 74	8 00		Not running do
Kingsville.....	36 59	28 88		Time not up do
Western Extension.....	424 89	196 48		do paddle, ferry.
Dream.....	44 51	30 27		Not yet inspected; screw, yacht.
Melburne.....	4 00			Laid up; screw, tug.
Alice S.....	4 00			do
	10,397 46	5,855 92		

STEAM Vessels not inspected for the half year ended 30th June, 1893.

MARITIME PROVINCES DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected, and Class of Vessel.
			\$ cts.	
Bessie Ardilla.....	11 77	7 77	.....	Time not up; screw, tug.
Derby.....	11 66	8 66	.....	Laid up; paddle, tug.
Bridgetown.....	14 66	9 97	.....	Out of port; screw, tug.
East Riding.....	85 55	45 26	.....	Not yet inspected; paddle, tug.
Squirrel.....	13 11	8 97	.....	Laid up; screw, tug.
Henrietta.....	19 12	13 01	.....	Not yet inspected; screw, tug.
Victor.....	45 51	28 67	.....	Time not up; paddle, tug.
St. Lawrence.....	50 82	10 51	.....	Not yet inspected; screw, tug.
Arbutus.....	46 76	31 80	.....	do do passenger.
Atlas.....	15 79	10 74	.....	Time not up; screw, tug.
Yantic.....	14 16	9 36	.....	do do
Lion.....	19 82	13 48	.....	do do
Mary Ann.....	25 38	17 26	.....	Laid up; screw, tug.
Rover.....	4 72	.....	.....	Not yet inspected; screw, fish-boat.
Mayflower.....	142 09	89 52	.....	Time not up: paddle, passenger.
Peerless.....	94 27	80 90	.....	do screw, passenger.
May Queen.....	142 09	89 52	.....	do paddle do
Magnolia.....	260 50	151 00	.....	Laid up do do
Marion.....	478 49	269 27	.....	Time not up do do
L. Boyer.....	60 00	49 00	.....	Not yet inspected; screw, tug.
Zaidee.....	18 36	12 67	.....	Time not up; screw, water-boat.
E. M. Cates.....	58 81	46 23	.....	do do tug.
Gladiator.....	70 40	36 86	.....	do do do
M. & E. Rudderham.....	33 54	24 44	.....	do do do
Lennox.....	66 29	41 76	.....	do do paddle, ferry.
Merrinac.....	85 80	26 13	.....	do do screw, tug.
Meadow Flower.....	6 56	4 46	.....	Inspection not applied for.
Mary Odell.....	22 55	13 18	.....	Time not up; screw, fish-boat.
Jessie Gray.....	76 00	47 93	.....	do stern wheel, lighter.
C. M. Winch.....	87 72	49 22	.....	do screw, tug.
Gipsy.....	16 70	11 37	.....	do do
Princess of Wales.....	935 54	685 62	.....	Laid up; paddle, passenger.
M. A. Starr.....	244 32	166 14	.....	Out of port; screw, freight.
Quiddy.....	30 59	14 27	.....	Laid up.
Commodore.....	12 84	7 67	.....	Time not up; screw, tug.
Newfield.....	784 91	508 82	.....	Not applied for; screw, Government.
St. Lawrence.....	467 13	290 01	.....	do do Government dredge.
Mayflower.....	392 05	235 78	.....	Time not up; twin screw, ferry.
Wanda.....	38 48	32 11	.....	Getting new boiler; screw, fish-boat.
Totals.....	15,401 72	9,058 27	.....

DOUGLAS STEVENS,
Steamboat Inspector.

Steamboat Inspection.

STEAM Vessels inspected to 30th June, 1893.

MARITIME PROVINCES DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
				\$ cts.	
La Tour.....	75	Feb. 20, '94	154	20 32	Passenger and freight.
Alpha.....	20	Mar. 16, '94	306	32 48	do do
City of St. John.....	130	Dec. 1, '93	709	64 72	do do
Dominion.....	135	Feb. 21, '94	594	55 52	do do
Yarmouth.....	350	Mar. 16, '94	1,432	124 16	do do
Avon.....	130	April 25, '94	64	10 12	Ferry service.
Blue Hill.....	100	Dec. 1, '93	195	20 60	Freight and passengers.
Boston.....	320	April 6, '94	1,694	133 52	do do
City of Monticello.....	350	do 14, '94	1,038	90 64	do do
Clifton.....	150	Dec. 10, '93	138	19 04	do do
City of Ghent.....	40	April 10, '94	198	23 92	do do
Dartmouth.....	700	May 2, '94	311	32 88	Ferry.
Fastnet.....	50	April 26, '94	337	35 04	Freight and passengers.
Hiawatha.....	300	do 25, '94	229	26 40	do do
Harlaw.....	75	April 5, '94	451	44 08	do do
Halifax.....	400	May 1, '94	1,738	147 04	do do
May Queen.....	330	Dec. 10, '93	539	51 12	do do
St. Olaf.....	150	do 17, '93	305	32 40	do do
Olivette, Lake Soulanges.....	250	do 10, '93	318	33 44	do do
Springfield.....	144	do 10, '93	232	26 56	do do
Star.....	300	do 10, '93	461	44 88	do do
W. E. Vroom.....	24	April 28, '94	10	5 80	Ferry service.
Tourist.....	25	June 21, '94	16	5 88	Tug and passenger.
David Weston.....	450	Dec. 10, '93	765	69 20	Freight and passengers.
Miramichi.....	60	June 27, '94	75	11 00	do do
Florenceville.....	270	Nov. 15, '93	185	22 80	do do
Egerton.....	165	May 12, '94	112	16 96	do do
Elfin.....	200	June 1, '94	122	17 76	Ferry service.
Montague.....	250	do 7, '94	129	18 32	do do
St. Lawrence.....	350	do 6, '94	845	75 60	Freight and passengers.
Southport.....	300	do 1, '94	239	27 20	Ferry service.
Northumberland.....	350	do 5, '94	1,225	108 40	Freight and passengers.
May Queen.....	35	do 1, '94	35	10 88	do do
F. C. Batt.....	40	do 9, '94	32	7 56	Ferry service.
Lady Dufferin.....	75	do 28, '94	47	8 76	do do
Maggie Miller.....	150	do 21, '94	104	16 32	do do
Nelson.....	100	do 27, '94	64	10 12	do do
Rustler.....	170	do 28, '94	77	11 16	do do
Sybella H.....	160	do 28, '94	70	10 60	do do
St. Nicholas.....	60	do 28, '94	62	9 96	Tug and passenger, in case of emergency.
Evangeline.....	85	Dec. 16, '93	78	11 32	Freight and passengers.
Flushing.....	250	June 19, '94	257	28 56	do do
Electra.....	30	do 7, '94	106	16 48	do do
Jacques Cartier.....	300	do 2, '94	379	38 40	do do
			15,517	1,632 92	

C. R. COKER,
Dominion Inspector of Hulls and Equipment.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

MARITIME PROVINCES DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.		Remarks. — Why not inspected, and Class of Vessel.
			\$	cts.	
Glencoe	32	24	7	56	To be inspected during the last half year, say from 1st July to 31st December, 1893.
Westport	80	55	11	40	
Weymouth	153	105	20	32	
Yuba	12	8	5	96	
Maple Leaf	129	81	18	32	
Bridgewater	207	118	24	64	
St. Pierre	496	275	47	68	
Halifax	338	168	35	04	
Delta	873	549	77	84	
Havana	470	245	35	68	
Mic-Mac	150	102	20	00	
Highland Mary	73	50	10	92	
Collector	52	35	9	16	
Carroll	1372	821	117	76	
Worcester	1322	796	114	64	
Marion	478	269	46	64	
Peerless	94	80	12	52	
Mary Queen	142	89	19	36	
Mayflower	392	235	39	36	
Rimouski	124	84	18	00	
Lennox	66	66	10	28	
Belleisle	155	97	20	40	
Acadia	74	66	10	92	
W. M. Weatherspoon	59	34	9	72	
Western Extension	424	169	41	92	
Onangondy	294	98	31	52	
Arbutus	46	31	8	76	
Marguerite	19	12	5	80	
Lunenburg	265	113	29	28	
Totals	8393	3869	951	40	

C. R. COKER,
Dominion Inspector of Hulls and Equipment.

E. E., ST. JOHN, N.B., 6th Sept., 1893.

Steamboat Inspection.

STEAM Vessels inspected for the half year ended 30th June, 1893.

MANITOBA, KEEWATIN AND NORTH-WEST TERRITORIES DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
		1894.		\$ cts.	
Angler		June 27	16 16	6 28	Screw, tug.
Annie Mac		do 15	25 22	7 00	do
Beaver		do 14	34 15	7 72	do
Brothers		do 1	17 50	6 44	do
Cambria	314	May 29	937 26	90 96	Paddle, passenger and freight.
Caro		June 18	14 47	6 12	Screw, tug.
Chieftain		do 16	40 00	8 20	do do
City of Selkirk	25	do 1	322 12	33 76	do passenger and freight.
Couchiching		May 25	105 42	13 40	do tug.
Cruiser		do 25	11 59	5 96	do do
D. L. Mather		do 25	103 32	13 24	do do
Empress	100 deck.	June 19	129 28	18 32	do passenger and freight.
Ethel Banning		do 10	37 54	8 04	do tug.
Fisherman		do 1	44 22	8 52	do do
Hazel		do 1	7 52	5 64	do do
Highland Maid	40	May 23	106 24	16 48	do passenger and freight.
Idell		June 1	53 92	9 32	do tug.
Kakabeka		May 31	112 67	17 04	do do
Kate Marks		June 2	54 15	9 32	do do
Keewatin		May 25	41 25	8 28	do do
Kennina	40	June 19	41 86	8 36	do ferry boat.
Lady Ellen		do 1	18 57	6 52	do tug.
Maple Leaf		do 10	75 07	11 00	do do
Mary Ann		do 1	87 00	11 96	do do
Mary Hatch		do 15	121 18	17 68	do do
Miles		do 1	63 04	10 04	do do
Millie Howell		do 9	24 11	6 92	do fishing tug.
Mocking Bird		May 29	38 02	8 04	do tug.
Ogema		June 1	62 05	9 96	do do
Rambler		do 15	13 50	6 12	do do
Red River	30 deck.	do 1	166 47	21 28	do passenger and freight.
Regina		May 25	6 78	5 54	do tug.
Rover		June 16	4 07	5 32	do do
Shamrock	40	do 5	79 84	11 40	do passenger and freight.
Sultana		do 1	357 55	33 64	do freight.
Thistle		do 18	23 33	6 84	do tug.
Victoria		do 19	40 10	8 20	do do
Total			3,436 54	488 86	

CHARLES E. ROBERTSON,
Steamboat Inspector.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

MANITOBA, KEEWATIN AND NORTH-WEST TERRITORIES DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. Why not inspected and class of Vessel.
			\$ cts.	
Alma T.....	15 78	10 73	6 28	Screw, tug.
Colville.....	164 41	145 21	21 12	Twin-screw, passenger and freight.
Gimli.....	29 82	20 28	7 40	Screw, freight.
Marquette.....	149 27	93 28	19 92	Stern-paddle, freight.
North-west.....	425 00	305 00	42 00	do passenger and freight.
Queen.....	31 64	18 17	7 56	Screw, tug.
Richmond.....	14 32	9 74	6 12	do fishing tug.
Algoma.....	99 13	51 98	12 92	do tug; boilers, engine and hull undergoing repairs.
Alice Sprague.....	98 49	62 05	.....	Stern-paddle, laid up at Winnipeg.
Antelope.....	142 61	109 73	.....	Side-paddle, sunk in Red River.
Athabasca.....	166 73	105 04	21 36	Stern-paddle, freight, Athabasca River.
Aurora.....	244 50	141 33	.....	Side-paddle, laid up at Selkirk.
Grahame.....	332 18	220 04	34 56	Stern-paddle, freight, Peace and Athabasca Rivers
Harry Montgomery.....	3 65	2 49	5 32	Screw, tug; at an island 80 miles from Selkirk, Lake Winnipeg.
Ida.....	19 37	13 17	.....	Renamed from "The Clara," bought in March and removed 200 miles from Port Arthur at the opening of navigation, to Rossport.
Lady of the Lake.....	1 63	1 11	.....	Screw, pleasure boat, withdrawn from register.
Marquis.....	753 76	474 87	.....	Stern-paddle, laid up at Prince Albert, N.W.T.
May Queen.....	8 01	5 45	.....	Screw, tug, at Saskatoon, laid up.
Minnow.....	29 05	15 57	.....	Stern-paddle, at Fort Saskatchewan, laid up.
Mountain Bell.....	90	60	5 08	Coal oil, passenger boat, Banff, N.W.T.
Northcote.....	461 34	289 48	.....	Stern-paddle, laid up at Prince Albert, N.W.T.
Princess.....	530 50	289 48	.....	Side-paddle, passenger, laid up at Selkirk.
Ripple.....	9 83	6 19	5 80	do tug, Red River.
Salty Jack.....	45 00	28 00	.....	Screw, tug, sunk in Kaministiquia River.
Saskatchewan.....	366 84	212 21	34 96	Side-wheel, freight, Lake Manitoba.
Sunbeam.....	2 86	1 94	.....	Screw, tug (exempt) Rat Portage.
Wrigley.....	90 04	60 23	12 20	Screw, freight, Mackenzie River.
Sir Hector.....	.....	.....	.....	do tug, dredge, tender.
Victoria.....	.....	.....	.....	Dredge, H. M. Government.
	4,183 57			

CHARLES E. ROBERTSON
Steamboat Inspector.

Steamboat Inspection.

STEAM Vessels inspected for the half year ended 30th June, 1893.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Remarks.
				\$ cts.	
Islander...	500	Jan. 9, '94	1,495 09	127 60	Twin-screw, passenger.
Hope		do 10, '94	78 49	11 32	Screw, tug.
City of Nanaimo...	300	do 11, '94	761 37	68 88	Twin-screw, passenger.
Brant		do 11, '94	18 66	6 52	Screw, fishing tug.
Barbara Boscowitz	150	do 13, '94	269 08	29 52	Screw, passenger and freight.
Burt		do 14, '94	50 41	9 00	Twin-screw, freight.
Thistle		do 12, '94	2 43	5 16	Fishing tug.
Capilano	Deck, 25	Feb. 3, '94	231 14	26 48	Freight boat.
Iona	do 25	do 14, '94	52 62	9 24	Screw, tug.
Surrey	50	do 10, '94	263 26	29 04	Paddle, ferry, Fraser River.
Cruiser		do 16, '94	12 74	6 04	Screw, tug.
Dreadnaught		do 16, '94	32 84	7 64	do
Spinster		do 18, '94	15 41	6 20	Yacht.
Nagasaki		Mar. 14, '94	15 13	6 20	Screw, tug.
Blonde		do 15, '94	32 64	7 64	do
Bon Accord	45	do 15, '94	84 15	11 72	Stern-wheel, passenger, Fraser River.
Agnes		do 16, '94	22 70	6 84	Steam scow, freight.
Mischief		Feb. 8, '94	65 49	10 28	Screw, sealing schooner.
Gladys	70	Mar. 20, '94	211 23	21 88	Stern-wheel, passenger, Fraser River.
Wm. Irving	200	do 20, '94	737 86	67 04	do do do
Florence		do 23, '94	59 44	9 80	Stern-wheel, water boat.
Vancouver		do 24, '94	49 96	18 00	Strew, tug; 2 years fees and dues.
Tepie	15	do 21, '94	70 87	10 68	do
Stella		April 10, '94	16 32	6 28	do
Mermaid	25	do 11, '94	128 55	18 32	Twin-screw, freight and passenger.
Evangeline		do 13, '94	13 86	12 24	Yacht; 2 years fees and dues.
Clara Young		do 17, '94	30 75	7 48	Screw, tug.
Lorne		do 18, '94	Special...	8 00	Repairs to boiler.
Daisy	12	do 16, '94	84 16	11 72	Screw, tug.
Danube	580	May 31, '93	...	8 00	Special increase of passengers.
R. P. Rithet	250	Oct. 31, '93	816 69	73 36	Stern-wheel, passenger.
Spratt's Ark		May 13, '94	307 88	32 64	Twin-screw, freight boat.
Clyde		do 15, '94	67 87	10 44	do do
Burt	20	do 17, '94	50 41	9 00	Twin-screw, passenger.
Lois		do 18, '94	25 15	7 00	Screw, tug.
Yvonne		do 20, '94	4 56	5 40	do yacht.
Badger		do 19, '94	49 93	9 00	do tug.
Florence	120	do 30, '93	59 44	5 00	Special passenger.
Edgar	50	do 25, '94	165 13	21 20	Stern-wheel, passenger, Fraser River.
Comet	12	do 25, '94	85 26	11 80	Screw, tug.
Warlock		do 27, '94	44 57	8 60	do sealing schooner.
Alert	20	do 29, '94	43 81	8 52	do tug.
Isabel	200	do 30, '94	429 52	42 40	Paddle, passenger.
George		do 31, '94	2 70	5 24	Screw, tug.
Fairy Queen		June 5, '94	24 94	7 00	Stern-wheel, freight.
Leonora		do 5, '94	33 00	7 64	Screw, tug.
Cutch	150	do 6, '94	324 27	33 92	do passenger.
Coquitlam	25	do 6, '94	256 33	28 48	do freight boat.
Entreprise		do 10, '94	2 95	5 24	do yacht.
Mascotte		do 12, '94	191 53	23 36	Twin-screw, freight.
Swan		do 15, '94	36 32	7 88	Screw, tug.
Ina		do 16, '94	7 52	5 64	do
Mamie		do 16, '94	89 60	12 20	do
Cariboo and Fly		do 19, '94	281 82	30 50	Twin-screw, freight.
Yachie		do 19, '94	9 97	5 80	Screw, yacht.
Premier	500	do 27, '94	1,044 41	91 52	do passenger.
Total			9,362 23	1,093 54	

J. A. THOMSON,
Steamboat Inspector, Victoria, B.C.

STEAM Vessels not inspected for the half year ended 30th June, 1893.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected, and Class of Vessel.
			\$ cts.	
Active	171 74	118 27	21 76	To be inspected after June 30th, 1893.
Courser.....	160 79	101 30	20 88	do do
Joe Adams	11 89	8 18	5 96	do do
May Queen	14 10	9 18	6 12	do do
Buzz.....	12 59	7 03	6 40	do do
Idaho.....	6 04	4 23	5 48	do do
Marion.....	14 78	9 33	6 20	do do
Duchess	145 48	91 66	19 60	do do
Penticton	49 69	33 79	9 00	do do
Lytton.....	451 66	284 55	44 16	do do
Hyak.....	39 04	24 60	8 12	do do
Nelson.....	496 01	312 49	47 68	do do
City of Ainsworth	193 49	121 90	23 44	do do
Kaslo.....	51 17	35 31	9 08	do do
Aberdeen.....	554 04	349 05	52 32	do do
Transfer	264 16	97 72	29 12	do do
Illecillewaet	97 92	61 69	12 84	do do
Spokane.....	399 77	251 66	40 00	do do
Senator.....	27 63	21 42	7 24	do do
Sunbury	73 36	46 22	10 84	do do
Swan.....	16 65	11 49	6 36	do do
Spray.....	7 36	5 00	5 56	do do
Princess Louise.....	931 76	544 01	82 56	do do
Joan.....	821 21	544 03	73 68	do do
Georgie.....	32 16	19 71	7 56	do do
Nora.....	19 43	13 21	6 60	do do
Florence	30 41	17 80	7 40	do do
Caledonia	164 30	130 00	26 96	do do
Nell.....	297 97	125 47	24 64	do do
Chieftain	64 80	38 75	10 20	do do
Minnie	9 53	6 49	5 80	do do
Muriel.....	44 13	27 81	8 52	do do
Westminster	18 29	14 17	6 44	do do
Yosemite.....	1525 03	1054 76	130 00	do do
Mary Hare.....	47 00	32 00	8 76	do do
Delta.....	25 20	17 14	7 00	do do
Eva.....	34 99	24 17	7 80	do do
Delta.....	14 90	10 29	6 20	do do
Winnefred	12 97	7 80	6 04	do do
Iris.....	19 32	13 48	6 60	do do
Brunnette.....	37 03	25 19	7 96	do do
Kildonan	51 41	32 08	9 08	do do
Telephone	80 66	50 82	11 48	do do
Delaware.....	475 20	273 38	46 00	do do
Etta White	97 35	82 40	12 76	do do
Saturna.....	22 05	15 00	6 76	do do
Skidegate.....	37 08	26 44	7 96	do do
Phanton	46 53	31 65	8 76	do do
Angerona.....	13 79	9 52	6 12	do do
Falcon.....	52 44	35 66	9 24	do do
Lottie.....	29 24	11 12	7 32	do do
Maude.....	174 99	93 77	22 00	do do
Lorne.....	287 96	159 25	31 04	do do
Velos.....	72 52	49 31	10 84	do do
Gemini.....	8 15	5 55	5 64	do do
R. Dunsmuir.....	231 75	146 00	26 56	do do
Gipy.....	49 63	31 28	9 00	do do
Belle.....	66 62	45 30	10 36	do do
Comox.....	101 17	60 16	16 08	do do
T. W. Carter.....	26 94	17 00	7 16	do do
Nanaimo.....	70 79	44 61	10 68	do do
Rover.....	6 57	4 47	5 56	do do

Steamboat Inspection.

STEAM Vessels not inspected, &c.—British Columbia Division—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks. — Why not inspected, and class of vessel.
			\$ cts.	
Cora	25·12	17·09	7 00	To be inspected after June 30th, 1893.
Estelle	84·06	57·17	11 72	do do
Thistle	222·36	146·89	25 72	do do
Esperanza	30·88	21·31	7 48	do do
Eliza Edwards	54·63	37·15	9 40	Taken to Mexico.
Spit Fire	8·00	4·00	5 64	Out of reach except at great expense of money and time.
Morris	11·66	8·09	5 96	do do
Bella	8·01	5·61	5 64	do do
Peerless	307·47	256·03	32 56	To be inspected after June 30th.
Surprise	14·8	10·00	6 12	Laid up.
Lilly	33·38	22·70	7 64	do
Galena	47·64	33·35	8 84	do
Rainbow	207·21	140·04	24 64	do
Wellington	16·3	11·00	6 28	do
Horse Shoe	17·71	11·41	6 44	do
Red Star N 2	36·85	23·21	7 96	do
	10095·60	6502·29	1298 72	

J. A. THOMPSON,
Steamboat Inspector.

STEAM Vessels inspected for the part of year ended 30th June, 1893.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
				\$ cts.	
Islander	500	Jan. 9, '94	1495.09	127 60	Twin screw.
Barbara Boscowitz	150	do 13, '94	269.08	29 52	Screw.
City of Nanainno	300	do 11, '94	761.37	68 88	Twin screw.
Capilano	25	Feb. 3, '94	231.14	26 48	Screw.
Iona	25	do 14, '94	52.62	9 24	Twin screw.
Surrey	50	do 10, '94	263.26	29 04	Paddle.
Bon Accord	45	Mar. 15, '94	84.15	11 72	Stern wheel.
Gladys	70	do 20, '94	211.23	24 88	do
Wm. Irving	200	do 20, '94	737.86	67 04	do
Tepie	15	do 21, '94	70.87	10 68	Screw.
Mermaid	25	April 11, '94	128.55	18 32	Twin screw.
Daisy	15	do 29, '94	84.16	11 72	Screw.
Danube	580	May 31, '93	886.89	8 00	do Special inspection.
R. P. Rithet	250	Oct. 30, '93	816.69	73 36	Stern wheel.
Spratts Ark		May 13, '94	307.88	32 64	Twin screw.
Burt	20	do 17, '94	50.41	9 00	do
Florence	120	do 30, '93	59.44	9 80	Stern wheel.
Comet	12	do 25, '94	85.26	11 80	Screw.
Edgar	50	do 25, '94	165.13	21 20	Stern wheel.
Alert	20	do 29, '94	43.81	8 52	Screw.
Isabel	200	do 30, '94	429.52	42 40	Paddle.
Cutch	150	June 6, '94	324.27	33 92	Screw.
Coquitlam	25	do 6, '94	256.33	28 48	do
Mascotte		do 12, '94	191.53	23 36	Twin screw.
Premier	500	do 27, '94	1044.41	91 52	Screw.
Totals	3327		9050.95	829 12	

R. COLLISTER,
Hull Inspector.

STEAM Vessels not inspected for the year ended 30th June, 1893.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Dues and Fees.	Remarks.
			\$ cts.	
Eliza Edwards	54.63	37.00	9 40	This screw steamer has gone south to Mexico.
Spitfire	8.00	4.00	5 64	Northern waters screw tug.
Morris	11.66	8.09	5 96	do do
	74.29	49.09	21 00	

R. COLLISTER,
Hull Inspector.

Steamboat Inspection.

STATEMENT of the number of Steam Vessels added to the Dominion during the half year ended 30th June, 1893; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built and where and how employed.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Earl	3-33	Screw	Wood	18	14	Mitchell's Bay, Ont.	Thames River, tug.
John Lee, sen.	9-00	do	do	52	35	Wallaceburg, Ont.	Sydenham and Detroit Rivers, passenger.
Jas. McKeon	4-08	do	do	36	24	Sarnia, Ont.	Spanish River, tug.
Acacia	5-04	do	do	55	38	Hamilton, Ont.	Burlington Bay, passenger.
John Logie	13-05	do	do	29	20	Goderich, Ont	Lake Huron, fishing tug.
Evelyn	9-63	do	do	32	22	do	do
	45-66			222	153		

JOHN DODDS,
Steamboat Inspector, West Ontario and Huron Division.

STATEMENT of the number of Steam Vessels added to the Dominion during the half year ended 30th June, 1893; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed—*Continued.*

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Dalton McCarthy.....	14·00	Screw.....	Wood.....	54	37	Collingwood.....	Georgian Bay, fishing tug.
Geraldine.....	16·66	do.....	do.....	64	45	Parry Sound.....	In the vicinity of Parry Sound, passenger.
Maybird.....	3·33	do.....	do.....	46	32	Toronto.....	Lake Ontario, freight.
Medora.....	29·06	do.....	Composite..	299	203	Gravenhurst.....	Muskoka lakes, passenger.
City of Collingwood.....	107·00	do.....	Wood.....	1,387	893	Owen Sound.....	Collingwood to Chicago, passenger.
	170·05			1,850	1,210		

JAS. JOHNSTON,
Steamboat Inspector, West Ontario Division.

Steamboat Inspection.

STATEMENT of the number of Steam Vessels added to the Dominion during the year ended 30th June, 1893; their Class and Horse-power, whether of Wood or Iron; their Gross and Registered Tonnage, where built, and where and how employed—*Continued.*

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
John Lee, sen.	A 2	Wood	51.89	35.29	Wallaceburg	Passenger, Wallaceburg and River St. Clair.
Acacia	A 2	do	55.16	37.51	Hamilton	do on Burlington Bay.
City of Collingwood	A 1	do	1,387.46	893.03	Owen Sound	do Collingwood and Chicago.
				1,494.51	965.93		

THOMAS HARBOTTLE,
Hull Inspector.

STATEMENT of the number of Steam Vessels added to the Dominion during the year ended 30th June, 1893; their Class and Horse-power, whether of Wood or Iron; their Gross and Registered Tonnage, where built, and where and how employed—Continued.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Carleton.....	6.53	Paddle.....	Wood.....	67.94	61.27	Carleton Place.....	Passenger boat, Mississippi River.
James Swift.....	11.23	Screw.....	do.....	265.92	197.23	Kingston.....	do Kingston and Ottawa.
Wapenao.....	2.40	do.....	do.....	4.52	3.07	do.....	Pleasure yacht.
Eva Belle.....	0.83	do.....	do.....	10.10	6.63	do.....	do
Ujas.....	1.20	do.....	do.....	16.71	11.36	do.....	do
St. Marie Louise.....	2.70	do.....	do.....	15.14	8.37	Lindsay.....	Passenger boat, Victoria and Peterboro' waters.
	24.89			380.33	287.93		

EDWARD ADAMS,
Steamboat Inspector.

Steamboat Inspection.

STATEMENT of the number of Steam Vessels added to the Dominion during the half year ended 30th June, 1893 ; their Class and Horse-power ; whether of Wood or Iron ; their Gross and Registered Tonnage ; where built, and where and how employed—*Continued.*

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Carleton	Paddle	Wood	67 94	61 27	Carleton Place.....	Mississippi River, passenger.
James Swift	Screw	do	265 92	197 23	Kingston.	Kingston and Ottawa do
Marie Louise	do	do	15 14	8 37	Lindsay	Co.'s Victoria and Peterborough, passenger.
			349 00	266 87		

THOMAS DONNELLY,
*Inspector of Hulls and Equipments,
East Ontario Division.*

STATEMENT of the number of Steam Vessels added to the Dominion during the halfyear ended 30th June, 1893; their Class and Horse-power; whether of Wood or Iron; their Gross Registered Tonnage; where built, and how employed—*Concluded.*

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Empress	3.1	Tug	Wood	35.57	27.61	Sturgeon Falls	Screw tug, Sturgeon Falls.
Turtle	1.5	do	do	33.12	27.33	Cache Bay	Cable tug, Cache Bay.
R. Hurdman	33.3	Passenger	do	No register	produced	Lake Kippewa	Tug, freight and passenger, Lake Kippewa.
McLaughlin, New Tug	9.36	Tug	do	do	do	Lake Quinze	Side-wheel tug, Lake Quinze.
McLaughlin, No. 1, Alligator		do	do	do	do	Simcoe, Ont	Cable tug, on lake behind Mattawa.
McLaughlin, No. 2	do	do	do	do	do	do	do
Madawaska	2.75	do	do	14.57	7.06	do	do
Sanson	2.75	do	do	15.27	7.33	do	do
Flora	1.3	Yacht	do	5.18	3.96	Pembroke, Ont	Private yacht, Pembroke.
North River	2.75	Tug	do	No register	produced	Simcoe, Ont	Lake Kippewa, cable tug.
H. Trudel	2.75	do	do	do	do	do	Lake Quinze
Beaver	2.75	do	do	13.20	6.00	do	Seven League Lake, tug.
Silver Spray	30	do	Steel	No register	produced (as per receipt)	Montreal	Montreal Harbour tug.
Sinclair	do	do	do	do	do	do	do
John Thompson	34	Yacht	Wood	do	do	Lake Quinze	Passenger yacht, Lake Quinze.
Wenona	do	do	do	do	do	Montebello	Yacht, towing, Montebello.
Hurtbise	1.2	Passenger	do	do	do	Hurtbise	Passenger, freight and tug, Casselman.
Monaco	5	Yacht	Teak wood, copper bottom	do	do	do	do
Leon Cyr	1.2	Passenger	Wood	9.67	6.05	London, Eng	Private pleasure yacht, Montreal.
				15.00	11.8	High Falls, Buckingham	Passenger and freight, Des Lièvres.
	133.55			141.58	97.14		

G. T. CLIFT.
Steamboat Inspector.

Steamboat Inspection.

STATEMENT of the number of Steam Vessels added to the Dominion during the half year ended 30th June, 1893; their Class and Horse-power; whether of Wood or Iron; the Gross and Registered Tonnage; where built, and where and how employed.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Deasy.....	5.16	Screw, tug.	Wood...	14.84	10.09	Quebec, 1893	Screw, Quebec Harbour, tug.
St. Anne.....	2.20	Screw.....	do	14.27	9.7	Sorel, 1889.	Screw, tug, ferry, Sorel and Berthier.
Fearless.....	2.20	do	do	10.04	6.83	Quebec, 1893	do Pabos River.
	9.56			39.15	17.89		

JOS. SAMSON,
Steamboat Inspector.
PIERRE W. BRUNELLE,
Hull Inspector.

STATEMENT of the number of Steam Vessels added to the Dominion during the half year ended 30th June, 1893; their Class and Horse-power; whether of wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Nereus.....	6.00	Screw.....	Wood... ..	16.39	11.15	Dartmouth, N.S.....	Halifax Harbour, yacht.
Rob Roy.....	2.13	do	do	13.97	9.52	Mount Denison, N.S.....	Avon River and Minas Basin, N.S., water boat.
	8.13			30.36	20.67		

DOUGLAS STEVENS,
Steamboat Inspector,
Maritime Provinces.

Steamboat Inspection.

STATEMENT of the number of Steam Vessels added to the Dominion during the year ended 30th June, 1893; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Edna R	13.5	Screw	Wood	49.66	25.49	Arcadia, N.S.	Yarmouth and Tusket, tug and fish-boat.
Martello	1.2	do	do	18.78	12.77	Jemseg, Queen's Co., N.B.	St. John River, tug.
Tusket	1.03	do	do	3.07	2.00	Tusket, N.S.	Tusket do
	16.33			71.51	40.26		

W. L. WARING,
Steamboat Inspector.

STATEMENT of the number of Steam Vessels added to the Dominion during the year ended 30th June, 1893; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
SS. May Queen.....	Wood.....	35	17	Charlottetown, P.E.I., 1892	Tug and passenger, Charlottetown, East and West River, P.E.I.

C. R. COKER,
Dominion Inspector of Hulls and Equipments.

St. JOHN, N.B., 6th September, 1893.

Steamboat Inspection.

STATEMENT of the number of Steam Vessels added to the Dominion during the year ended 31st December, 1893, their Class and Horse-power, whether of Wood or Iron, their Gross and Registered Tonnage, where built, and where and how employed.

BRITISH COLUMBIA.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Ethel Banning	3.3	.....	Wood	37.54	25.53	Fort Frances.....	Rainy River tug.
Maple Leaf.....	3.3	.....	do	75.07	51.05	do	do
Georgina.....	5.1	.....	do	Not measured.		Port Arthur.....	Fishing tug.

J. A. THOMPSON.

STATEMENT of the number of Steam Vessels added to the Dominion during the part of Year ended 30th June, 1893, their Class and Horse-power, whether of Wood or Iron, their Gross and Registered Tonnage, where built, and where and how employed.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	(Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Brant	1.2	Screw tug ..	Wood	18.66	12.88	New Westminster	Cannery service, Fraser River.
Thistle	2.	do ..	do	2.43	1.66	Vancouver	Fishing coast, R.C.
Spinster	1.5	Screw yacht.	do	15.28	10.38	Victoria	Cruising do
Yvonne	1.2	do ..	do	4.56	3.11	Vancouver	do do
Edgar	9.6	Stern-wheel passenger.	do	165.13	113.94	New Westminster	Freight and passenger, Fraser River.
Warlock	15.6	Screw sch.r.	do	44.57	39.31	Victoria	Sealing, North Pacific.
Swan	8.4	Screw tug ..	do	36.32	24.70	do	Cannery service, Rivers Inlet.
Ina	1.2	do ..	do	7.52	5.12	Vancouver	Cruising coast, B.C.
Premier	161.5	Screw p.a.s.senger.	Steel	1,044.41	496.58	San Francisco, U.S.	Victoria and Vancouver passenger service.

C. E. ROBERTSON.

Steamboat Inspection.

STATEMENT of the number of Steam Vessels added to the Dominion during the part of year ended 30th June, 1893, their Class and Horse-power, whether of Wood or Iron, their Gross or Registered Tonnage, where built, and where and how employed.
BRITISH COLUMBIA.

Name of Vessel.	Horse-power.	Class.	Wood or Iron.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Brant	1·2	Screw	Wood	18·66	12·88	New Westminster	Cannery service, Fraser River.
Thistle	2·0	do	do	2·43	1·66	Vancouver	Fishing along the coast.
Spinster	1·5	do	do	15·28	10·38	Victoria	Cruising.
Yvonne	1·2	do	do	4·56	3·11	Vancouver	do
Edgar	9·6	Stern-wheel.	do	165·13	113·94	New Westminster	Freight and passenger, Fraser River.
Warlock	15·6	Screw	do	44·57	39·31	Victoria	Seal hunting.
Swan	8·4	do	do	36·32	24·70	do	Cannery service.
Ina	1·2	do	do	7·52	5·12	Vancouver	Coasting.
Premier	161·5	do	Steel	1,044·41	496·58	San Francisco	Passenger, Victoria and Mainland.
	202·2			1,338·88	707·68		

R. COLLISTER,
Hull Inspector.

STATEMENT of Steam Vessels lost, broken up or laid up as unfit for service, in the Dominion during the half year ended 30th June, 1893, and where and how employed.

WEST ONTARIO DIVISION.

Name of Vessel.	Where and how last employed.	Name of Vessel.	Where and how last employed.
Henry Smyth.....	Lake Huron, fishing tug.	P. Cross.....	Lake Huron, freight.
Lothair.....	Great Lakes, freight.	Maggie Mason....	Burlington Bay, passenger.
Canada.....	do do	Uncle John.....	Lake Erie, fishing tug.
Jas. Leighton.....	Lake Huron, tug.	Butcher Boy.....	Lake Huron, tug.

THOS. HARBOTTLE,
Hull Inspector.
JAS. JOHNSON,
JOHN DODDS,
Steamboat Inspectors.

EAST ONTARIO DIVISION.

Khartoum.....	Boiler condemned, was used as a freight boat, Rideau Canal.	J. K. Ward.....	Tug boat, Rideau Canal.
Mary Louise.....	Passenger boat on waters of Victoria and Peterboro'.	Mary Ellen . . .	Tug boat, Victoria and Peterboro' waters.

EDWARD ADAMS.
Steamboat Inspector.

MONTREAL DIVISION.

J. O. B.....	Lake Kippewa, tug, broken up.	Montmorency....	Buckingham, tug, laid up.
Silver Spray.....	St. Lawrence, tug, broken up.	Castor.....	Quyon, tug, laid up.
High Rock.....	Buckingham, tug, laid up.	John Heney.....	Ottawa, tug, broken up.
Kate.....	do do		

GEO. T. CLIFT,
Steamboat Inspector.

QUEBEC DIVISION.

Maggie Bell.....	Tug, steamer, Montreal and Quebec.	May Flower.....	Quebec Harbour, tug, burned to water.
Patrick Murphy..	Quebec Harbour, tug.	J. R. Souter.....	Quebec Harbour, tug, burned after being laid up for winter.

JOS. SAMPSON,
Steamboat Inspector.

MARITIME PROVINCES DIVISION.

Lulu C.	Richibucto, tug.	Dominion.....	St. John and Halifax, passenger.
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DOUGLAS STEVENS.
Steamboat Inspector.

Steamboat Inspection.

MARITIME DIVISION.

Name of Vessel.	Where and how last employed.	Name of Vessel.	Where and how last employed.
Dominion.	Passenger and freight service, St. John, Yarmouth and Halifax; stranded at the entrance of Lunenburg Harbour on the 24th April, 1893, and subsequently became a total wreck.	Princess of Wales	Laid up, the owners not requiring her for the service at present as a passenger and freight vessel across the Straits of Northumberland.
Magnolia.	Requires extensive repairs to the hull, boilers and machinery that the owners have laid her up and placed the SS. Blue Hill on her route from Mulgrave to St. Peter's, C.B.	Havana.	Went ashore off Northumberland and subsequently got off, and now laid up in Halifax Harbour and under the orders of the underwriters.

C. R. COKER,
Steamboat Inspector.

MANITOBA, KEEWATIN AND NORTH-WEST TERRITORIES DIVISION.

Antelope.	Sunk in Red River opposite Banatyne street, Winnipeg, on May 1st, 1893, where she is still, very much broken up after the ice shove; passenger str., Red River and tributaries.		
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EDMUND R. ABEL,
Steamboat Inspector.

BRITISH COLUMBIA DIVISION.

Amelia.	Passengers, Victoria and Nanaimo, dismantled.	Dispatch.	Snag boat, Columbia River, broken up.
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J. A. THOMPSON,
Steamboat Inspector.

List of Certificates of Competency granted to Engineers of Steamboats during the
year ended 30th June, 1893.

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1892.					\$ cts.
1322	July 4.	J. Young	Permit.	Peterborough, Ont	Bobcaygeon	2 00
1323	do 4.	S. R. Heenan	do	Cardinal, Ont.	Prescott.	2 00
1324	do 4.	J. Roxbury	3rd class	Montreal, Que.	Quebec	5 00
1325	do 4.	C. Montville	Permit.	Thurso, Que.	Montreal	2 00
1326	do 15.	J. P. Esdaile.	1st class, U.K.	Halifax, N.S.	Halifax.	5 00
1327	do 15.	W. Dumas	4th class	Sorel, Que.	Quebec.	5 00
1328	do 15.	J. Hamelin	3rd class.	Bienville, Que	do	5 00
1329	do 15.	L. Ouellet	do	Laouz, Que.	do	5 00
1330	do 15.	E. Paquet.	do	St. Roch, Que	do	5 00
1331	do 20.	F. E. Martin.	Permit.	Port Dover, Ont.	Port Dover.	2 00
1332	do 20.	H. L. Waring.	4th class	St. John, N.B.	St. John	5 00
1333	Aug. 3.	John E. Ball.	Permit.	Cæsarea, Ont.	Lindsay.	2 00
1334	do 3.	P. Massaw	do	Lindsay, Ont.	do	2 00
1335	do 3.	C. Graville	do	Bridgenorth, Ont.	Bobcaygeon.	2 00
1336	do 3.	F. J. Parkin	do	Lindsay, Ont.	Lindsay.	2 00
1337	do 3.	H. Lakey	do	Lakefield, Ont.	Lakefield.	2 00
1338	do 10.	C. H. McJunkin.	2nd class	Yarmouth, N.S.	Halifax.	5 00
1339	do 12.	Thomas O'Mara	Permit.	Lombardy, Ont.	Kingston.	2 00
1340	do 16.	Robert Angus	4th class	Buckingham, Que.	Ottawa.	5 00
1341	Sept. 13.	W. Powles	Permit.	Tyendinaga, Ont.	Kingston.	2 00
1342	do 20.	C. J. Fisher.	2nd class, U.K.	St. John, N.B.	St. John	5 00
1343	do 20.	T. W. Robertson.	4th class	Victoria, B.C.	Victoria	5 00
1344	Oct. 11.	James Anderson	2nd class, U.K.	Chatham, N.B.	St. John	5 00
1345	do 11.	John Mills	do	Victoria, B.C.	Victoria	5 00
1346	Nov. 4.	J. Mulholland	3rd class	Kingston, Ont.	Collingwood.	5 00
1347	do 12.	N. Bernatchez.	4th class	Village Bienville, Que.	Quebec.	5 00
1348	do 14.	R. McKay	1st class, U.K.	Halifax, N.S.	Halifax.	5 00
1349	do 16.	A. Chailyer	4th class	Sorel, Que.	Sorel	5 00
1350	do 23.	W. H. Hall	do	Victoria, B.C.	Victoria	5 00
1351	do 23.	Geo. W. Gilbert.	3rd class	do	do	5 00
1352	do 24.	Geo. McGregor	do	do	do	5 00
1353	do 24.	John Tumilty	do	do	do	5 00
1354	Dec. 1.	Joseph Ladds	4th class	Windsor, Ont.	Windsor	5 00
1355	do 5.	F. Merrill.	2nd class	Elm Ave., Windsor, Ont.	do	5 00
1356	do 5.	H. G. W. Spurling	do U.K.	Hamilton, Bermuda.	Montreal.	5 00
1357	do 7.	J. T. McKee.	4th class	Pictou, N.S.	Pictou	5 00
1358	do 30.	John Puetz	3rd class	Victoria, B.C.	Victoria	5 00
1359	do 30.	George M. Arnold.	2nd class	Toronto, Ont.	Toronto	5 00
1360	do 30.	J. McArthur.	do	Port Dalhousie, Ont.	do	5 00
1361	do 30.	J. H. McNeill.	do U.K.	Charlottetown, P.E.I.	Halifax.	5 00
	1893.					
1362	Jan. 7.	John Urquhart.	4th class	Toronto, Ont.	Toronto	5 00
1363	do 14.	R. J. Parsell	do	do	do	5 00
1364	do 14.	E. T. Dunn	3rd class	Owen Sound, Ont.	do	5 00
1365	do 14.	James Lee.	4th class	Wallaceburg, Ont.	Wallaceburg.	5 00
1366	do 14.	M. A. McLeod.	2nd class.	Orwell, P.E.I.	Quebec.	5 00
1367	do 18.	W. E. Sutherland.	do	do	do	5 00
1368	do 18.	Wm. Ritchie.	do	Bermuda.	do	
1369	do 18.	J. Ross	do	Dartmouth, N.S.	Halifax.	5 00
1370	do 18.	R. Hampson	4th class, U.K.	Montreal, P.Q.	Montreal.	5 00
1371	do 26.	J. Branch	do	Kingston, Ont.	Kingston.	5 00
1372	do 26.	C. R. Weddleton	do	Yarmouth, N.S.	Yarmouth	5 00
1373	do 26.	M. McP. Kirk	do	Kingston, Ont.	Kingston.	5 00
1374	do 27.	J. B. McMurray.	2nd class.	Pictou, N.S.	St. John.	5 00
1375	do 27.	W. F. Oakes.	4th class, U.K.	Cheltenham, Ont.	Toronto	5 00
1376	do 27.	H. T. McLeod.	3rd class	Barrie, Ont.	do	5 00
1377	do 30.	J. A. Wallace.	do	Charles Hbr., Trenton, O.	Kingston.	5 00
1378	Feb. 1.	S. Beatty	4th class	Cape Rich, Ont.	Toronto	5 00
1379	do 3.	J. McBride	do	Collingwood, Ont.	do	5 00
1380	do 10.	T. H. Toney.	2nd class.	Victoria, B.C.	Victoria	5 00
1381	do 10.	C. E. Stewart	1st class, U.K.	Halifax, N.S.	Halifax.	5 00
1382	do 10.	T. H. Murray	4th class, U.K.	Collingwood, Ont.	Toronto	5 00
1383	do 13.	C. Mondville.	Permit.	Thurso, P.Q.		2 00
1384	do 13.	J. F. Walker.	2nd class.	New Westminster, B.C.	Victoria	5 00

Steamboat Inspection.

LIST of Certificates of Competency granted to Engineers of Steamboats, &c.—*Con.*

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
1893.						\$ cts.
1385	Feb. 25.	A. J. Woodward.	3rd class, U.K.	Kingston, Ont.	Kingston.	5 00
1386	do 25.	F. Mahaffey.	do	Port Colborne, Ont.	Toronto.	5 00
1387	do 24.	D. McLeod.	4th class	Collingwood, Ont.	do	5 00
1388	do 24.	J. Madden.	do	Kingston, Ont.	Kingston.	5 00
1389	do 24.	A. C. Baiden.	do	Portsmouth, Ont.	do	5 00
1390	do 24.	O. Larochelle.	do	St. Roch, P.Q.	Quebec.	5 00
1391	do 24.	J. Aston.	2nd class.	Collingwood, Ont.	Toronto.	5 00
1392	Mar. 4.	E. Lacroix.	do	Village Bienville, P.Q.	Quebec.	5 00
1393	do 4.	W. Clauson	3rd class.	Quyon, P.Q.	Montreal.	5 00
1394	do 6.	G. Lemelin.	4th class.	Village Lauzon.	Quebec.	5 00
1395	do 6.	J. H. Stanton.	3rd class.	St. Catharines, Ont.	Toronto.	5 00
1396	do 16.	G. W. Clarkson.	4th class.	Toronto.	do	5 00
1397	do 16.	J. B. Lacroix.	1st class.	Lévis.	Quebec.	5 00
1398	do 16.	W. Wright.	4th class.	Port Dalhousie.	Toronto.	5 00
1399	do 16.	C. Wilbur.	2nd class.	Victoria Harbour, Ont.	do	5 00
1400	do 16.	J. E. Langley.	4th class.	Victoria, B.C.	Victoria	5 00
1401	do 16.	E. Davies.	do	do	do	5 00
1402	do 16.	J. D. McInnis.	3rd class.	Georgetown, N.S.	do	5 00
1403	do 16.	R. Morison.	4th class.	Victoria, B.C.	do	5 00
1404	do 16.	Thos. Despres.	do	Village Lauzon.	Quebec.	5 00
1405	do 16.	E. Desrochers.	do	Ste. Croix, P.Q.	do	5 00
1406	do 16.	James Payne.	2nd class.	Collingwood, Ont.	Toronto.	5 00
1407	do 16.	W. H. Stalker.	4th class.	Port Ryerson.	do	5 00
1408	do 16.	A. Robertson.	2nd class.	Montreal, P.Q.	Montreal.	5 00
1409	do 18.	W. Rogers.	2nd class, U.K.	New Westminster, B.C.	Victoria	5 00
1410	do 21.	W. McGregor.	3rd class.	do	do	5 00
1411	do 21.	T. F. Kechmie.	do	Victoria, B.C.	do	5 00
1412	do 22.	Ovide Bonin.	4th class.	Sorel, P.Q.	Sorel	5 00
1413	do 29.	A. Charbonneau.	1st class.	do	do	1 00
1414	do 29.	Thos. McLaughlin.	4th class.	Sarnia, Ont.	Toronto	5 00
1415	do 29.	P. W. Lyon.	do	Barrie, Ont.	do	5 00
1416	April 1.	H. Michaud.	do	Village Bienville.	Quebec.	5 00
1417	do 1.	E. Beaudoin.	do	Village Lauzon.	do	5 00
1418	do 1.	C. Grenier.	do	St. Sauveur, P.Q.	do	5 00
1419	do 1.	C. Sauvageau.	do	Village Lauzon, P.Q.	do	5 00
1420	do 6.	T. J. Gorham.	3rd class.	White Stone P.O., Ont.	Toronto	5 00
1421	do 17.	A. Williamson.	do	Goderich, Ont.	do	1 00
1422	do 6.	N. Desbien.	4th class.	Village Bienville.	Quebec.	5 00
1423	do 6.	J. Ruel.	2nd class.	Lévis, P.Q.	do	5 00
1424	do 18.	Peter Massaw.	Permit.	Lindsay, Ont.	Lindsay.	2 00
1425	do 21.	W. Harman.	4th class.	Collingwood, Ont.	Toronto.	5 00
1426	do 26.	G. H. Shutliff.	Permit.	Gananoque, Ont.	Kingston.	5 00
1427	May 12.	F. T. Goodwin.	3rd class.	Peterboro', Ont.	Toronto.	5 00
1428	do 12.	W. T. Pitt.	4th class.	St. John, N.B.	St. John.	5 00
1429	do 12.	D. J. Gallagher.	do	do	do	5 00
1430	do 12.	W. B. Couson.	3rd class.	Donalds, B.C.	Victoria	5 00
1431	do 12.	J. Hamilton.	2nd class.	Village Bienville, P.Q.	Quebec.	5 00
1432	do 19.	Edouard Many.	1st class.	Lauzon, P.Q.	do	1 00
1433	do 19.	Chas. Williamson.	2nd class.	Kingston, Ont.	Kingston.	5 00
1434	do 23.	John Peck.	3rd class.	Victoria, B.C.	Victoria	5 00
1435	June 19.	A. S. Cordiner.	2nd class.	Halifax, N.S.	Halifax.	5 00
1436	do 19.	J. H. Crossley.	2nd class, U.K.	do	do	5 00
1437	do 19.	J. McMichael.	4th class.	Sorel, P.Q.	Quebec.	5 00
1438	do 19.	J. Gonyea.	Permit.	Smith's Falls, Ont.	Kingston.	2 00
1439	do 19.	Thos. O'Reilly.	do	Belleville, Ont.	Belleville.	2 00
1440	do 19.	Danl. O'Donnell.	do	do	do	2 00
1441	do 19.	J. Young.	do	Peterboro', Ont.	Bobcaygeon.	2 00
1442	do 19.	L. Samson.	3rd class.	Village Lauzon, P.Q.	Quebec.	5 00
1443	do 19.	A. T. Low.	Permit.	Port Carling, Ont.	Port Carling.	2 00
1444	do 24.	J. E. Ball.	do	Cæsarea, Ont.	Lindsay.	2 00
1445	do 26.	J. Bolton.	do	Kingston, Ont.	Kingston.	2 00
1446	do 29.	W. Hungerford.	do	Lindsay, Ont.	Lindsay.	2 00
1447	do 29.	W. Powles.	do	Tyendinaga, Ont.	Kingston.	2 00
1448	do 29.	J. Davies.	do	Kingston, Ont.	do	2 00

APPENDIX No. 3.

REPORT OF THE HARBOUR COMMISSIONERS OF MONTREAL FOR THE
CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

SECRETARY'S OFFICE,

MONTREAL, 3rd April, 1894.

SIR,—I have the honour, by direction of the Harbour Commissioners of Montreal, to forward herewith, for the information of the Honourable the Minister of Marine and Fisheries, statement of the general receipts and disbursements of the trust, for the year ended 31st December, 1893.

The revenue from wharfage dues and rentals shows an increase of \$26,508.07, or more than 9 per cent over 1892, of which nearly two-thirds accrued from imports.

The usual reports for the past year of the Montreal Decayed Pilots' Fund, the Montreal pilotage district, and the harbour master, have already been forwarded you; while that of the chief engineer on the works for the improvement and maintenance of the harbour will be transmitted shortly.

From the harbour master's report it will be seen that there was an increase in the tonnage of ocean vessels of 115,070 tons, or 11 per cent; the total having been 1,151,777 tons, which is almost 40 per cent over the tonnage of 1889, the first year after the tonnage dues on vessels were abolished.

I have the honour to be, sir,

Your obedient servant,

ALEXANDER ROBERTSON,

Secretary.

WILLIAM SMITH, Esq.,

Deputy Minister of Marine and Fisheries,

Ottawa.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT of General Receipts and Disbursements for the Year ended 31st December, 1893—*Concluded.*

RECEIPTS— <i>Concluded.</i>		Revenue.	Capital.	DISBURSEMENTS— <i>Concluded.</i>		Revenue.	Capital.
		\$ cts.	\$ cts.			\$ cts.	\$ cts.
Middleton & Meredith, of credit note for rebate amount of prizes in 1890.		1 44		Dominion Coal Co.'s tracks, coal tower tracks and railway sidings, &c. (see <i>contra</i> for credit).			18,220 14
St. Lawrence Sugar Refining Co., wharfage on 209 tons of sugar, landed during 1893, in excess of quantity paid for at Custom House.		52 25		Windmill Point basin, dredging for enlargement of Harbour railway, extension of both harbour tracks to Maisonneuve pier.			12,973 83
John Lee & Co., rental of portion of harbour yard.		300 00		Land derricks, housing and sundries.			28,357 94
Canadian Pacific Railway Co., rental of harbour tracks.		2,750 50		Three new derricks, changes in Harbour plant, altering boxes for dredgings and making rings and shackles for same. \$ 1,780 79			771 71
Grand Trunk Railway Co., rental of harbour tracks.		1,392 50		Harbour plant, hooks and chains for lifting boxes. 887 71			3,340 75
For credit of harbour repairs, stone and old timber sold.		30 25		Harbour plant, brasses for cars. 2,668 50			
For credit of harbour repairs, Manufacturers' Accident Insurance Co., for sick allowance.		13 23		do do portable drill and engine, with connections. 279 22			
For credit of harbour interest, accrued interest on harbour debentures.		536 65		Harbour plant, emery grinder. 129 00			
For credit of harbour interest, Citizens' Light and Power Co., on electric light plant.		98 99		do frogs and switches. 158 00			
For credit of harbour expenses, City of Montreal refunds on account of assessments and water tax.		93 90		do tug "Emma Munson". 4,125 00			
For credit of harbour expenses, Sincennes-McNaughton Line for telegrams.		0 59		do five new scows, 150 yards capacity. 11,010 31			
For credit of pilotage expenses, license fees from two pilots and four apprentices.		40 00		Less—Rails, fish plates, track bolts, &c., used on extension of harbour railway, and on Dominion Coal Co.'s tracks. 4,833 43			
For credit of harbour dredging, from City of Montreal for dredging sewage in Elgin Basin.		1,275 00	1,313 13	Section 26, construction, filling in of the small basin and making deep water berth.			20,981 65
For credit of electric light plant, Citizen's Light and Power Co.			79 70	Hochelaga construction, filling large pools and low places in rear of wharf line (see <i>contra</i> for credit). \$33,830 74			
For credit of harbour dredging, sundry work performed, &c.				Hochelaga construction, dredging basins at sections 41-45. 14,277 30			
For credit, harbour plant, despatch boat "City of Stratford" sold.			200 00	Guard pier construction, dredging for and depositing in (see <i>contra</i> for credit).			48,108 04
For credit of guard pier construction, City of Montreal, for its proportion of cost of in 1892.			10,748 15				51,038 83
For credit of guard pier construction, Manufacturer's Accident Insurance Co., sick allowance.			34 80				
For credit of Hochelaga construction, Manufacturers' Accident Insurance Co., sick allowance.			41 09				
For credit of Dominion Coal Company's tracks, Manufacturers' Accident Insurance Co., sick allowance.			20 12				
For credit of chart account, ship channel charts sold.			74 35				

Steamboat Inspection.

From sundry purchasers of 4 per cent harbour debentures From Alliance Assurance Co., damage to tug "St. Louis" by fire From Bank of Montreal, further overdraft of current acct. For account of Montreal Decayed Pilots' Fund, 5 per cent of pilots' earnings \$3,471 30 For account of Montreal Decayed Pilots' Fund, interests on investments and cash in bank . . . 2,638 11	73,000 00 1,568 00 23,858 37 ----- 6,109 91 185,737 98 318,936 98	Harbour enlargement works basin, dredging of Montreal Decayed Pilots' Fund, pensions to old pilots and widows \$4,764 05 Montreal Decayed Pilots' Fund, audit of fund for 1892, postage, &c 46 58 ----- Disbursements on capital account Disbursements on revenue account ----- Total disbursements	1,971 94 ----- 4,810 63 212,958 48 232,300 92 ----- 445,259 40
<i>Balance at 31st December, 1893:—</i>			
Cash on hand \$ 122 06 Sundry accounts due for rentals, &c. 1,792 21 Value of stores on hand 10,498 06 ----- \$12,412 33 Less—Harbour interest coupons outstanding \$ 517 50 At credit of cash suspense act. 5 07 Due collector H.M. Customs, Montreal 3,906 39 ----- 4,428 96			
<i>Montreal Decayed Pilots' Fund (held in trust for):—</i>			
Montreal harbour debentures . . \$ 44,000 City of Montreal Consolidated Fund 5,000 Deposit in Montreal City and District Savings Bank 2,432 19 ----- 51,432 19			
----- \$7,983 37			
----- 504,674 96			

ALEX. ROBERTSON,
Secretary Treasurer.

MONTREAL, 30th March, 1894.
 Verified.
RIDDLE & COMMON,
Auditors.

MONTREAL, 27th January, 1894.

SIR,—I beg to transmit you herewith a copy of the harbour master's report, and six accompanying statements.

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

ALEXANDER ROBERTSON,
Secretary.

WILLIAM SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

REPORT OF THE HARBOUR MASTER OF THE PORT OF MONTREAL
FOR THE YEAR, 1893.

CAPTAIN THOMAS HOWARD, HARBOUR MASTER.

HARBOUR MASTER'S OFFICE,
MONTREAL, 17th January, 1894.

ALEXANDER ROBERTSON, Esq.,
Secretary Harbour Commissioners of Montreal.

DEAR SIR,—For the information of the Board of Harbour Commissioners, I beg to submit the following as my annual report for the year 1893, with comparative statements showing the number, tonnage, classification, nationality, greatest number of vessels in port at one time, number and tonnage of sea-going vessels consigned to the different agents, with statements showing the number and tonnage of inland vessels, and the greatest number in port at one time, during the past ten years.

Eight hundred and four sea-going vessels arrived in port during the season, of the aggregate tonnage of 1,151,777 tons, of these vessels 737 were built of iron, of an aggregate tonnage of 1,132,016 tons, and 67 of wood, of an aggregate tonnage of 19,716 tons, showing an increase in ocean tonnage of 115,070 tons over the previous year. Of inland vessels there arrived in port 5,244, of an aggregate tonnage of 1,053,600 tons, showing an increase of 44 vessels and in tonnage 4,000 tons, and a total of 6,048 vessels of all classes and 2,205,377 tons in tonnage, showing an increase of tonnage of vessels of all classes of 119,070 tons.

Some of the principal items of exports and imports during the season were :—

EXPORTS.

Lumber.—There were shipped during the season of lumber, square and wane timber, to the United Kingdom and continental ports 131,192,021 feet board measure, and to the River Plate 7,520,775 feet, making a total of 138,712,796 feet, and a decrease of 67,430,445 feet from the previous year.

Phosphate.—There were shipped 4,132 tons, showing a decrease of 1881 tons, as compared with 1892.

Steamboat Inspection.

Grain.—There were shipped 6,909,337 bushels of wheat, 9,650,554 of corn, 1,781,571 of pease, 3,119,240 of oats, 43,331 of barley, 220,361 of rye, making a grand total of 21,724,394 bushels, and an increase of 2,830,168 bushels over the previous year.

Flour.—There were shipped in bags and barrels equal to 514,872 barrels, showing a decrease of 86,371 barrels from the previous year.

Cheese.—There were shipped 1,635,608 boxes, showing a decrease of 17,020 from the previous year.

Butter.—There were shipped 70,743 packages, showing a decrease of 32,596 packages from the previous year.

Apples.—There were shipped 61,926 barrels, showing a decrease of 408,554 as compared with 1892.

Cattle and Sheep.—Cattle shipped 83,004 head, and 3,649 sheep, showing a decrease of 15,751 head of cattle, and a decrease of 12,283 sheep from the previous year.

Horses.—There were shipped 1,752, showing an increase of 13 over the previous year.

Hay and Straw.—There were shipped during the season 67,865 tons. This is a great increase over any previous year and was caused by the failure of the hay crop in Europe.

IMPORTS.

Coal.—We had from Great Britain 30,794 tons, showing an increase of 12,438 tons; from the United States 226,364 tons, showing an increase of 4,401 tons; making a total of 257,158 tons; from the Maritime Provinces 687,000 tons, showing an increase of 138,029 tons; and a grand total of 944,158 tons; and an increase over the previous year of 153,968 tons; of this coal 727,774 tons were discharged in the harbour and 216,384 tons in the canal.

Cement.—We had 146,340 barrels, showing an increase over the previous year of 25,982 barrels.

Scrap Iron.—We had discharged in the harbour 25,018 tons, showing an increase over the previous year of 5,206 tons.

HARBOUR IMPROVEMENTS.

The wharfs and roads were in good repair during the season. The new wharf, section 26, will be completed in the early spring, which will give an extra berth for sea-going vessels. Your Commissioners ordered the wharfs at Windmill Point to be extended to the head of the harbour. With this object in view, a considerable amount of dredging was done last season, when this work is done it will be of great advantage to the coal trade and enable vessels to load grain from Grand Trunk Railway elevators. Your Commissioners also ordered another pier to be built at Hochelaga, similar to the one opposite the sugar refinery, section 46, when this pier is completed it will afford large accommodations for the discharging and loading of lumber. Your Commissioners have about $9\frac{1}{2}$ miles of railway tracks on the wharfs, extending from Windmill Point to the outer end of the new pier at Maisonneuve, section 46; these tracks will be operated by the Grand Trunk, Canadian Pacific, and the sidings at Hochelaga by the Dominion Coal Company. The extension of the tracks will afford great accommodation to those interested in the port. The removal of the shoal below Victoria Pier is a great improvement, it will enable vessels to get in and out of their berths without any difficulty.

Yours respectfully,

THOMAS HOWARD,
Harbour Master.

WEATHER Report for 1893.

Date.	Temperature.	Wind.	Remarks.
Jan. 1.	25 above	W.	2 p.m., snowstorm; 5 p.m., rain.
do 2.	37 do	W.	Roads making from St. Lambert.
do 3.	3 do	N.W.	Fine, clear morning.
do 4.	10 below	N.W.	Sleighing; good crossing from St. Lambert.
do 5.	10 do	N.E.	
do 6.	3 above	N.E.	
do 7.	3 do	N.W.	Fine, clear weather.
do 8.	Zero	N.W.	11 a.m., 2 above; 10 p.m., 5 below.
do 9.	4 below	E.	Snowing.
do 10.	11 above	W.	do
do 11.	14 below	N.W.	Sleighing good.
do 12.	11 do	N.W.	
do 13.	1 above	N.W.	
do 14.	2 below	W.	Fine weather.
do 15.	1 above	N.W.	do
do 16.	3 below	N.W.	
do 17.	5 above	N.W.	
do 18.	7 below	N.E.	
do 19.	9 above	N.E.	Fine, bright morning.
do 20.	9 do	N.W.	Snowing.
do 21.	3 do	W.	Fine, clear weather.
do 22.	7 do	W.	Fine day.
do 23.	2 do	N.W.	Snowing.
do 24.	12 do	E.	
do 25.	26 do	S.E.	Snowing this morning and all day.
do 26.	12 do	N.W.	
do 27.	3 do	N.E.	Fine weather.
do 28.	Zero	N.E.	
do 29.	18 above	E.	10 a.m., rain; 4 p.m., temperature 40 above.
do 30.	12 do	W.	Fine, clear morning.
do 31.	9 do	N.E.	Fine morning.
Feb. 1.	3 do	N.E.	
do 2.	12 do	N.W.	Fine, clear morning.
do 3.	4 below	N.E.	Snowstorm.
do 4.	8 do	N.W.	Fine weather.
do 5.	6 do	W.	
do 6.	6 above	S.W.	Snowing, 10 a.m., 16 above; 8 p.m., rain.
do 7.	27 do	N.	Snow, 10 a.m., temperature 30; 5 p.m., 1 below.
do 8.	5 below	N.W.	Fine, clear morning.
do 9.	13 above	W.	Fine weather.
do 10.	27 do	W.	Rain all day.
do 11.	18 do	N.E.	Fine day.
do 12.	18 do	N.E.	Fine morning.
do 13.	17 do	N.E.	Overcast.
do 14.	22 do	E.	Fine weather.
do 15.	40 do	N.W.	Rain all day; blowing hard.
do 16.	22 do	W.	Fine day.
do 17.	4 below	N.W.	
do 18.	Zero	E.	Snowing.
do 19.	12 above	E.	do
do 20.	4 do	N.W.	
do 21.	4 below	W.	
do 22.	10 above	E.	Snowstorm.
do 23.	16 do	W.	Delightful day.
do 24.	8 do	E.	
do 25.	9 do	N.W.	Fine weather.
do 26.	12 do	N.W.	
do 27.	14 do	N.W.	do
do 28.	12 do	N.	do
March 1.	25 do	W.	Delightful day.
do 2.	17 do	N.W.	
do 3.	17 do	N.W.	
do 4.	18 do	E.	Sunshine.
do 5.	12 do	W.	Fine day.
do 6.	12 do	W.	
do 7.	27 do	W.	Fine morning.
do 8.	25 do	W.	do
do 9.	27 do	N.E.	do
do 10.	25 do	N.E.	
do 11.	37 do	S.E.	

Steamboat Inspection.

WEATHER Report for 1893—*Continued.*

Date.	Temperature.	Wind.	Remarks.
March 12.	40 above	E.	Rain.
do 13.	32 do	S. E.	Dark morning.
do 14.	34 do	W.	Fine morning.
do 15.	28 do	W.	Snowing.
do 16.	20 do	N. W.	Fine day.
do 17.	15 do	W.	do
do 18.	5 do	N. E.	do
do 19.	16 do	N. W.	
do 20.	19 do	N. W.	Fine weather.
do 21.	34 do	W.	Snowstorm; 10 a.m., rain.
do 22.	17 do	N. E.	
do 23.	10 do	N. E.	2 p.m., snowstorm.
do 24.	40 do	S. W.	2 p.m., rain.
do 25.	41 do	N. W.	
do 26.	24 do	N. W.	Fine day.
do 27.	27 do	N. W.	do weather.
do 28.	22 do	N. E.	
do 29.	25 do	W.	Fine, clear weather.
do 30.	32 do	S.	10 a.m., snowstorm.
do 31.	26 do	N. W.	Fine clear morning.
April 1.	30 do	E.	Raining.
do 2.	15 do	N. W.	
do 3.	25 do	W.	Snowstorm.
do 4.	28 do	E.	Rain this morning.
do 5.	28 do	N. W.	
do 6.	15 do	E.	Fine and sunshine.
do 7.	28 do	S. E.	Dark morning; 10 p.m., rain.
do 8.	41 do	W.	Fine, clear morning.
do 9.	38 do	W.	Fine day.
do 10.	40 do	S. W.	
do 11.	38 do	N.	Fine morning; no crossing on ice.
do 12.	42 do	S.	Fine weather.
do 13.	48 do	S.	9 a.m., rain; dark morning.
do 14.	44 do	N. W.	
do 15.	30 do	W.	
do 16.	32 do	N. W.	Fine day.
do 17.	35 do	W.	Fine morning.
do 18.	40 do	N. W.	Rain this morning.
do 19.	32 do	N. W.	Ice just the same; noon, ice moving; water, 33 feet 4 inches; ss. "Charrington" arrived at Quebec, first from sea.
do 20.	30 do	S. W.	Water, 31 feet 4 inches; channel clear.
do 21.	39 do	S. E.	Snow and rain.
do 22.	40 do	W.	Rain this morning.
do 23.	35 do	N. W.	
do 24.	34 do	N. W.	Str. "Hochelaga," first arrival.
do 25.	40 do	N. W.	Sheds going up on wharves.
do 26.	30 do	E.	
do 27.	40 do	E.	Rainstorm, blowing hard.
do 28.	44 do	W.	Fine, bright morning.
do 29.	45 do	W.	Ice gone at Cap Rouge at 9 a.m.
do 30.	50 do	W.	Report of ice at Cap Rouge not correct, not gone yet.
May 1.	45 do	S. E.	Dark morning, rain; Lachine Canal filled but not opened; ice gone at Cap Rouge at 10 p.m.
do 2.	44 do	E.	
do 3.	50 do	E.	SS. "Pickhuben" first arrival from sea.
do 4.	44 do	E.	Blowing a gale, bad morning.
do 5.	44 do	W.	Lachine Canal opened for navigation.
do 6.	46 do	E.	Cold.
do 7.	55 do	S. W.	Fine morning.
do 8.	65 do	W.	do do
do 9.	60 do	S. W.	do clear morning.
do 10.	65 do	W.	do day.
do 11.	60 do	W.	do morning.
do 12.	70 do	S. W.	do do
do 13.	68 do	S. W.	do do
do 14.	58 do	N. E.	Went and cleared berth for ss. "Parisian."
do 15.	50 do	N. E.	Rain this morning.
do 16.	50 do	E.	do nasty morning.
do 17.	55 do	E.	Dark morning.
do 18.	55 do	W.	Clearing.

WEATHER Report for 1893—Continued.

Date.	Temperature.	Wind.	Remarks.
May 19.	48 above	W.	Fine this morning.
do 20.	50 do	W.	do morning.
do 21.	45 do	W.	do day.
do 22.	48 do	W.	do morning.
do 23.	60 do	E.	5 p.m., great wind and rain storm.
do 24.	50 do	W.	
do 25.	60 do	S.	Fine morning.
do 26.	65 do	N.	do do
do 27.	55 do	W.	do do
do 28.	55 do	W.	Showery.
do 29.	60 do	W.	Fine morning.
do 30.	60 do	S.W.	
do 31.	65 do	W.	Fine morning.
June 1.	65 do	W.	do do
do 2.	60 do	S.	Dark do
do 3.	70 do	E.	Great thunder and rain storm.
do 4.	80 do	W.	Thunder and rain.
do 5.	70 do	S.W.	Fine morning.
do 6.	75 do	E.	Rain storm, dark morning.
do 7.	59 do	W.	Fine morning.
do 8.	65 do	W.	do do
do 9.	70 do	W.	do do
do 10.	70 do	W.	do do
do 11.	65 do	W.	Rain during the day.
do 12.	60 do	N.E.	
do 13.	68 do	E.	Fine morning.
do 14.	75 do	W.	Fine weather at 2 p.m., temperature, 85.
do 15.	75 do	E.	do do do 80.
do 16.	73 do	S.W.	
do 17.	60 do	W.	Rain last night.
do 18.	75 do	E.	2 p.m., temperature, 85.
do 19.	70 do	W.	Caravels arrive at 11 a.m.
do 20.	75 do	W.	do left for Chicago.
do 21.	72 do	E.	Fine morning.
do 22.	75 do	S.W.	Dark do
do 23.	69 do	S.E.	do day.
do 24.	70 do	S.	do morning.
do 25.	80 do	W.	Fine day.
do 26.	70 do	N.E.	Fine morning.
do 27.	70 do	E.	Dark do
do 28.	69 do	W.	
do 29.	69 do	W.	do do
do 30.	71 do	W.	Fine do
July 1.	72 do	W.	do do
do 2.	80 do	W.	7 p.m., temp. 85.
do 3.	80 do	W.	2 p.m., rainstorm.
do 4.	70 do	N.W.	Dark morning.
do 5.	65 do	N.W.	do do
do 6.	70 do	N.W.	Fine do
do 7.	70 do	W.	do do
do 8.	70 do	S.W.	4 p.m., great rain and windstorm; did some damage.
do 9.	65 do	N.W.	Fine day.
do 10.	62 do	N.E.	do morning.
do 11.	67 do	N.W.	do do
do 12.	65 do	W.	
do 13.	64 do	E.	Great change.
do 14.	68 do	E.	Fine morning.
do 15.	70 do	N.E.	Dark do
do 16.	68 do	W.	Fine day.
do 17.	70 do	S.W.	Fine day; 5 p.m., rainstorm.
do 18.	70 do	N.W.	Fine morning.
do 19.	70 do	E.	do do
do 20.	70 do	N.	Fine day.
do 21.	75 do	W.	Fine weather.
do 22.	75 do	W.	Thunderstorm this morning.
do 23.	65 do	W.	Cold showers all day.
do 24.	66 do	N.W.	
do 25.	65 do	W.	9 a.m., rain.
do 26.	70 do	W.	Thunder and lightning storm.
do 27.	65 do	N.	Fine morning.

Steamboat Inspection.

WEATHER Report for 1893—Continued.

Date.	Temperature.	Wind.	Remarks.
July 28.	68 above	W.	Fine morning.
do 29.	70 do	W.	Rain; dark day.
do 30.	84 do	W.	Fine day; at 8 p. m. Italian cruiser "Etna" arrived at Victoria Pier.
do 31.	75 do	W.	
Aug. 1.	75 do	N. W.	Fine.
do 2.	75 do	N. W.	Fine morning.
do 3.	70 do	W.	Fine weather.
do 4.	75 do	W.	Fine weather; at 3 p. m. temp. 90.
do 5.	75 do	W.	Fine morning.
do 6.	68 do	W.	Overcast all day; rain all night.
do 7.	68 do	N. E.	Rain this morning.
do 8.	75 do	W.	Fine morning.
do 9.	75 do	W.	
do 10.	78 do	S. W.	
do 11.	80 do	S. W.	At 2 p. m. temp. 92.
do 12.	76 do	W.	Dark morning; at 9 a. m., rain.
do 13.	60 do	W.	Great change; fine day.
do 14.	72 do	N. W.	
do 15.	65 do	N. E.	Fine weather.
do 16.	70 do	N. E.	Fine morning.
do 17.	65 do	N. E.	do
do 18.	65 do	N. E.	
do 19.	65 do	N. W.	Dark morning.
do 20.	68 do	W.	Fine day.
do 21.	65 do	N. E.	Rain last night.
do 22.	68 do	N. W.	Rain this morning.
do 23.	68 do	S. W.	Fine morning.
do 24.	72 do	E.	Rainstorm continued all day.
do 25.	70 do	W.	Fine morning.
do 26.	70 do	E.	do
do 27.	80 do	W.	Fine day.
do 28.	67 do	N. E.	Rain this morning.
do 29.	75 do	S. W.	
do 30.	65 do	W.	Fine morning.
do 31.	66 do	N. E.	Fine day.
Sept. 1.	60 do	S. W.	
do 2.	60 do	N. W.	Rain this morning.
do 3.	52 do	N. W.	Cold.
do 4.	50 do	N. W.	Frost last night.
do 5.	50 do	N. W.	9 a. m., rain.
do 6.	50 do	N. W.	Fine, clear weather.
do 7.	55 do	S. W.	9 a. m., rain.
do 8.	55 do	N. W.	Fine morning.
do 9.	55 do	N. W.	do
do 10.	60 do	N. W.	Fine day.
do 11.	55 do	N. W.	
do 12.	60 do	S. W.	Fine day; H. M. S. "Mohawk" left port at 9.30 a. m.
do 13.	50 do	S. W.	Frost last night.
do 14.	65 do	S.	Dark morning.
do 15.	65 do	S. W.	Rain this morning.
do 16.	65 do	W.	Blowing hard.
do 17.	55 do	N. W.	Cold.
do 18.	50 do	N. W.	Fine morning.
do 19.	60 do	W.	do
do 20.	60 do	N. W.	Blowing hard.
do 21.	50 do	N. E.	Fine morning.
do 22.	50 do	S. W.	Rain.
do 23.	50 do	S. W.	Dark morning.
do 24.	55 do	W.	Delightful day.
do 25.	50 do	S.	Cold rain.
do 26.	50 do	N.	Fine morning.
do 27.	50 do	W.	Fine day.
do 28.	51 do	N. W.	do weather.
do 29.	50 do	N. E.	do morning.
do 30.	60 do	N. W.	do do
Oct. 1.	58 do	W.	Very fine.
do 2.	55 do	N. E.	Fine morning.
do 3.	50 do	E.	do do
do 4.	50 do	S.	Frost last night.

WEATHER Report for 1893—Continued.

Date.	Temperature.	Wind.	Remarks.
Oct. 5.	55 above	W.	Fine morning.
do 6.	55 do	E.	do do
do 7.	65 do	S. W.	S.S. "Parisian" left at 9.30 a.m.
do 8.	58 do	W.	Fine day.
do 9.	58 do	S. W.	Rain this morning.
do 10.	50 do	N. W.	Fine morning.
do 11.	50 do	S.	do do
do 12.	50 do	N. E.	do weather.
do 13.	50 do	S. W.	do morning.
do 14.	60 do	S. W.	Blowing hard.
do 15.	55 do	N. W.	do a gale.
do 16.	50 do	W.	Fine morning.
do 17.	44 do	W.	do do
do 18.	45 do	E.	do weather.
do 19.	40 do	E.	do cold morning.
do 20.	50 do	S. W.	do morning.
do 21.	52 do	N. W.	Dark morning.
do 22.	60 do	W.	Fine day.
do 23.	65 do	S.	do weather.
do 24.	60 do	S.	Dark morning.
do 25.	50 do	W.	Fine do
do 26.	38 do	E.	Frost last night.
do 27.	55 do	S. W.	Rain; dark morning.
do 28.	45 do	N. E.	Fine clear morning.
do 29.	40 do	N. W.	do and cold.
do 30.	35 do	N. W.	do morning.
do 31.	35 do	S.	Frost last night.
Nov. 1.	40 do	W.	Fine morning.
do 2.	55 do	S. W.	do do
do 3.	50 do	W.	Rain last night.
do 4.	50 do	N. W.	Fine morning.
do 5.	50 do	W.	do day.
do 6.	50 do	N. W.	do morning.
do 7.	40 do	S. E.	Frost last night.
do 8.	40 do	W.	Fine morning.
do 9.	40 do	E.	do do
do 10.	30 do	E.	do do
do 11.	35 do	N. W.	Dark do
do 12.	40 do	W.	Delightful day.
do 13.	40 do	S. W.	Dark morning.
do 14.	40 do	W.	Fine do
do 15.	40 do	N. W.	Fine do
do 16.	30 do	N. W.	Fine do
do 17.	34 do	S. W.	Fine clear morning.
do 18.	44 do	N. W.	Rain last night.
do 19.	34 do	N. W.	Fine weather.
do 20.	30 do	W.	First snow last night.
do 21.	30 do	S. W.	Fine morning.
do 22.	35 do	S.	Snow last night.
do 23.	40 do	W.	S.S. "State of Alabama" left port this morning, being last SS. for sea this season.
do 24.	34 do	W.	Fine morning.
do 25.	25 do	N. W.	Str. "Canada" left for winter quarters.
do 26.	18 do	N. W.	Str. "Quebec" left for winter quarters.
do 27.	20 do	N. E.	Dark morning.
do 28.	40 do	S.	Mild fine morning.
do 29.	30 do	W.	Fine day.
do 30.	37 do	W.	do morning.
Dec. 1.	35 do	W.	Snow this morning.
do 2.	14 do	W.	Fine morning.
do 3.	12 do	S. E.	Snow all day.
do 4.	12 do	W.	Fine day.
do 5.	Zero	W.	Good sleighing.
do 6.	12 above	W.	Water rising.
do 7.	20 do	S. W.	Snowing.
do 8.	20 do	S. W.	Snowing.
do 9.	30 do	S.	Snowing.
do 10.	25 do	W.	Fine day.
do 11.	4 below	W.	do
do 12.	4 do	N.	Blowing hard.

Steamboat Inspection.

WEATHER Report for 1893—*Concluded.*

Date.	Temperature.	Wind.	Remarks.
Dec. 13..	4 below	N.W;	
do 14..	5 do	N.	Cold morning.
do 15..	16 above	E.	Water on top of wharves.
do 16..	Zero	W.	
do 17..	2 below	W.	Fine day.
do 18..	6 above	W.	Fine cold day.
do 19..	10 do	W.	Snowstorm last night.
do 20..	4 do	W.	Fine morning.
do 21..	27 do	N.	do day.
do 22..	2 below	W.	Road making to Longueuil.
do 23..	17 above	E.	Dull morning.
do 24..	19 do	W.	Fine do
do 25..	25 do	W.	Rain and hail all day.
do 26..	10 do	W.	First crossing from Longueuil.
do 27..	10 do	W.	Road making to St. Lambert.
do 28..	27 do	E.	Horses crossing to dump.
do 29..	33 do	E.	Crossing to St. Lambert.
do 30..	25 do	W.	Fine day.
dq 31..	24 do	W.	do

THOMAS HOWARD,
Harbour Master.

PORT OF MONTREAL.

COMPARATIVE STATEMENT showing the Number and Tonnage of Inland Vessels that arrived in port the past ten years, with the greatest number in port at one time.

Years.	Number of Vessels.	Tonnage.	Greatest Number in Port at one time.
1884.....	4,808	726,015	161—July 9
1885.....	5,003	724,975	142—Oct. 1.
1886.....	5,521	809,819	178—Aug. 25.
1887.....	5,367	791,452	189—May 31.
1888.....	5,500	863,014	163—Aug. 14.
1889.....	5,847	1,069,709	187—Aug. 15.
1890.....	5,162	966,959	167—Oct. 30.
1891.....	5,268	1,119,484	151—Sept. 7.
1892.....	5,200	1,049,600	159—Aug. 6.
1893.....	5,244	1,053,600	158—July 25.

THOMAS HOWARD,
Harbour Master.

PORT OF MONTREAL.

Number and Tonnage of Sea-going Vessels that were consigned to the following merchants during the season of 1893.

No.	Name of Firms.	Steam	Tonnage.	Sail.	Tonnage.	Total Vessels.	Total Tonnage.
1	Kingman, Brown & Co.....	203	208,770	3	3,920	206	212,690
2	H. & A. Allan.....	78	194,219			78	194,219
3	R. Reford & Co.....	79	157,173			79	157,173
4	D. Torrance & Co.....	48	111,817			48	111,817
5	Munderloh & Co.....	44	81,623	1	1,040	34	82,663
6	McLean, Kennedy & Co.....	48	78,531	4	1,840	52	80,371
7	H. E. Murray.....	31	75,703			31	75,703
8	Harling, Ronald & Co.....	37	69,904	4	5,013	41	74,917
9	Carbray, Routh & Co.....	54	63,106	1	1,369	55	64,475
10	H. Dobell & Co.....	25	19,128	2	2,119	27	21,247
11	Intercolonial Coal Co.....	24	21,240			24	21,240
12	J. G. Sidey.....	10	13,407			10	13,407
13	J. G. Brock.....	30	9,325	9	752	39	10,077
14	Anderson McKenzie.....	2	2,341	6	2,694	8	5,035
15	A. Girard & Co.....	3	4,572			3	4,572
16	Masters.....	12	4,054	2	366	14	4,420
17	J. Hope & Co.....	2	4,208			2	4,208
18	C. A. Boucher.....			33	2,759	33	2,759
19	T. S. Vipond & Co.....	4	2,353			4	2,353
20	Three others.....	3	7,184	2	1,247	5	8,431
	Total.....	737	1,128,658	67	23,119	804	1,151,777

THOMAS HOWARD,
Harbour Master.

PORT OF MONTREAL.

STATEMENT showing the Nationality and Tonnage of Sea-going Vessels that arrived in Port during the season 1893, that were navigated by 23,764 seamen.

Nationality.	Number of Vessels.	Tonnage.
British.....	733	1,049,259
German.....	30	65,863
Norwegian.....	29	23,570
Spanish.....	3	3,695
Italian.....	1	3,470
French.....	2	3,396
Dutch.....	1	1,369
American.....	5	1,155
Total.....	804	1,151,777

THOMAS HOWARD,
Harbour Master.

Steamboat Inspection.

PORT OF MONTREAL.

COMPARATIVE STATEMENT showing the dates of the opening and closing of navigation, first arrival from sea, and the last departure for sea, the past ten years.

Years.	Opening of Navigation.	Closing of Navigation.	First Arrival from Sea.	Last Departure for Sea.
1884.....	April 22.....	Dec. 18.....	May 2.....	Nov. 20
1885.....	May 5.....	do 7.....	do 8.....	do 20
1886.....	April 24.....	do 4.....	April 30.....	do 25
1887.....	May 1.....	do 23.....	May 3.....	do 28
1888.....	April 29.....	do 14.....	do 4.....	do 22
1889.....	do 14.....	do 29.....	April 27.....	do 23
1890.....	do 14.....	do 3.....	do 30.....	do 24
1891.....	do 17.....	do 17.....	do 27.....	do 21
1892.....	do 13.....	do 23.....	do 23.....	do 27
1893.....	do 24.....	do 4.....	May 3.....	do 23

THOMAS HOWARD,
Harbour Master.

PORT OF MONTREAL.

COMPARATIVE STATEMENT showing the Number, Tonnage, and Classification of Sea-going Vessels that arrived in Port from the Maritime Provinces the past ten years.

Year.	Ships.	Tonnage.	Ships.	Tonnage.	Barques.	Tonnage.	Brigs.	Tonnage.	Brigantines.	Tonnage.	Schooners.	Tonnage.	Total vessels.	Total Tonnage.
1884.....	161	124,377			8	5,031			1	456	40	3,825	210	133,689
1885.....	142	117,436			18	11,997			10	2,307	47	4,814	217	133,554
1886.....	175	150,784			4	2,535	3	794	2	466	41	2,902	225	157,481
1887.....	224	194,028	2	2,389	11	8,676	1	313	2	342	36	3,139	276	208,882
1888.....	213	195,598	1	1,199	4	3,079			3	701	35	3,375	256	203,952
1889.....	184	174,076			1	998			3	441	52	4,668	240	179,133
1890.....	252	235,722							1	170	42	3,714	295	329,606
1891.....	272	261,702			2	1,462			2	520	29	3,067	305	266,751
1892.....	289	275,040			3	2,215	1	149	2	340	36	2,214	331	280,958
1893.....	333	324,188					1	169			34	2,577	368	326,934

THOMAS HOWARD,
Harbour Master.

PORT OF MONTREAL.

COMPARATIVE STATEMENT showing the Number, Tonnage and Classification of Sea-going Vessels that arrived in Port the past ten years, with the dates of the greatest number in the Port at one time.

Years.	Ships.	Tonnage.	Ships.	Tonnage.	Barques.	Tonnage.	Brigs.	Tonnage.	Brigantines.	Tonnage.	Schooners.	Tonnage.	Total Number of Vessels.	Total Tonnage.	Number in Port.
1884..	444	585,397	2	2,218	83	49,047	3	1,036	13	2,996	81	8,679	626	649,374	44 Aug. 13
1885..	441	619,647	2	2,792	76	45,560	1	338	23	6,141	86	9,376	629	683,854	43 July 15
1886..	532	736,648	11	13,475	63	47,233	10	3,061	7	1,850	75	7,432	703	809,699	44 Aug. 18
1887..	600	807,491	7	8,648	68	43,275	4	1,118	7	2,031	82	8,194	767	807,773	37 July 21
1888..	532	742,276	7	9,634	32	20,208	..	..	10	2,631	74	7,714	655	782,473	36 June 27
1889..	522	763,783	8	11,923	49	33,982	4	1,239	11	2,356	101	9,882	695	823,165	39 Aug. 14
1890..	624	889,189	9	13,127	33	19,442	2	590	8	1,323	70	6,671	746	930,332	37 Sept. 3
1891..	631	903,043	11	16,113	15	11,054	1	149	9	2,127	58	6,171	725	938,657	46 Aug. 19
1892..	658	1,004,396	8	11,705	21	15,405	1	149	4	809	43	4,243	735	1,036,707	39 July 12
1893..	637	1,128,653	3	4,014	11	8,893	..	..	5	1,856	48	8,356	804	1,151,777	42 do 19

THOMAS HOWARD,
Harbour Master.

Steamboat Inspection.

APPENDIX No. 4

REPORT OF THE TORONTO HARBOUR COMMISSIONERS FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

SECRETARY of the Toronto Harbour Trust in Account with the Commissioners for the
year 1893.

DR. GENERAL BALANCE SHEET. CR.

1893.		\$ cts.	1893.		\$ cts.
Dec. 31	Wharf property.....	43,073 72	Dec. 31	Profit and loss.....	31,475 24
do 31	Elevator property.....	10,250 00	do 31	Debentures (not matured)....	35,000 00
do 31	Office furniture.....	581 31	do 31	Medler & Arnot (account in abeyance).....	275 00
do 31	Special deposit.....	10,000 00			
do 31	Cash on hand and in bank....	2,845 21			
		66,750 24			66,750 24

We have examined the books and vouchers and have compared the balance sheet as above with the said books, &c., and we certify the same to be correct and to represent a true statement of the affairs of the Trust to 31st December, 1893.

COLIN W. POSTLETHWAITE,
Deputy Harbour Master.

MORGAN BALDWIN,
Harbour Master.

C. B. GRASSET,
W. A. HARRIS,
Auditors.

ARTHUR B. LEE,
Chairman.

JAS. T. MATHEWS,
W. A. GEDDES,
GEORGE McMURRICH,
JOHN JOLLIFFE,
Commissioners.

TORONTO, 8th January, 1893.

RECEIPTS and Expenditure of the Toronto Harbour Trust for the year 1893.

1893.	RECEIPTS.	\$ cts.	1893.	EXPENDITURE.	\$ cts.
Jan. 1	Cash on hand and in bank....	5,467 17	Dec. 31	General repairs.....	2,373 21
Dec. 31	Canadian Pacific Ry. Co.....	5,000 00	do 31	Lights, buoys and beacons....	255 95
do 31	City Corporation on account of W. W. Buoys.....	143 00	do 31	Charges.....	300 00
do 31	Government grant.....	10,000 00	do 31	Breakwater.....	5,996 15
do 31	Interest on deposits in bank...	167 79	do 31	Printing and stationery.....	46 01
do 31	Harbour dues.....	8,478 32	do 31	Office rent and expenses.....	756 45
			do 31	Dredging.....	789 97
			do 31	Salaries.....	2,665 75
			do 31	Interest on debentures.....	2,625 00
			do 31	Fire insurance.....	141 33
			do 31	Solicitor's account, law expenses	350 00
			do 31	Engineer's acct., special reports	75 00
			do 31	Advertising for tenders.....	36 25
			do 31	Special deposit (to meet ma- tured debentures).....	10,000 00
			do 31	Amount on deposit in bank...	2,834 73
			do 31	Amount of cash in hand....	10 48
		29,256 28			29,256 28

Audited and found correct.

C. B. GRASSETT,
W. R. HARRIS,
Auditors.

TORONTO, 3rd January, 1894.

STATEMENT of Accounts in Detail.

1893.		FURNITURE ACCOUNT.	\$ cts.	\$ cts.
Dec.	31..	Amount per Ledger folio 197		581 31
		PROPERTY ACCOUNT.		
Dec.	31..	Amount per Ledger folio 408.		43,073 72
		ELEVATOR ACCOUNT.		
Dec.	31..	Amount per Ledger folio 408.		10,250 00
		INSURANCE ACCOUNT.		
Jan.	21..	Premium on lighthouses, &c.	8 00	
Sept.	15..	Premium on elevator, &c.	133 33	141 33
		CANADIAN PACIFIC RAILWAY COMPANY.		
Dec.	31..	Rent on elevator property, 12 months	3,000 00	
do	31..	Rent on water lot and wharf, 12 months	2,000 00	5,000 00
		DREDGING.		
May	26..	R. McDonald, per contract	729 50	
do	26..	K. Tully, engineer's fees	36 47	
do	26..	T. J. Freeman, check clerk	24 00	789 97
		PRINTING AND STATIONERY.		
Jan.	31..	Copp, Clark Co., envelopes	5 50	
do	31..	Arcade Printing Co., annual statistics	15 00	
Feb.	16..	Mail Printing Co., notice to mariners	5 25	
July	27..	Copp, Clark Co., note paper	9 00	
Dec.	31..	Petty cash, postage, &c.	11 26	46 01
		OFFICE EXPENSES.		
Dec.	31..	Rent for 12 months	650 00	
do	31..	Rent for two telephones	90 00	
do	31..	Petty cash, directory, water rate, &c	16 45	756 45
		GENERAL REPAIR ACCOUNT.		
June	5..	Douglas Bros., sheeting elevator	1,890 00	
July	5..	W. Munro & Son, carpenter work	70 21	
do	5..	R. J. Hovenden, painters' work	300 00	
do	5..	K. Tully, engineer's fees	113 00	2,373 21
		BREAKWATER ACCOUNT.		
Dec.	31..	On account Armour's contract	1,049 50	
do	31..	do paid into court	1,222 85	
do	31..	do Medler & Arnot's contract	3,324 00	
Feb.	17..	Advertising for tenders	16 05	
Dec.	31..	K. Tully, engineer's fees	263 75	
do	31..	D. P. Ross, check clerk	120 00	5,996 15

Steamboat Inspection.

STATEMENT of Accounts in Detail—Continued.

		LIGHTS, BUOYS AND BEACONS.	\$ cts.	\$ cts.
May	5..	F. Jackman, placing buoys per contract	30 00	
do	5..	Capt. Taylor, painting buoys	13 13	
June	6..	F. Jackman, removing obstructions in harbour	4 00	
Dec.	11..	do taking in buoys per contract	40 00	
do	23..	do towing buoys after storm	62 00	
do	31..	Gas account for year	59 87	
do	31..	Petty cash, moving buoys, posters, &c	7 85	
		R. Lewis & Son, n-w fog bell at Queen's wharf	39 10	
			255 95	
		Proportion paid by city engineer and water works	143 00	112 95
		CHARGES.		
Jan.	10..	Commissioners' fees for 1892	250 00	
do	10..	Auditors' fees for 1892	50 00	
				300 00
		DEBENTURE ACCOUNT.		
Dec.	31..	35 bonds, not matured	35,000 00	
do	31..	Interest on same for 1½ years	2,625 00	
				37,625 00
		SALARIES.		
Dec.	31..	M. Baldwin, harbour master	1,200 00	
do	31..	C. W. Postlethwaite, deputy harbour master	800 00	
do	31..	Capt. Taylor, deputy harbour master and lighthouse keeper	600 00	
do	31..	Assistant clerk, G. F. Shaw	65 75	
				2,665 75

DR.		PROFIT AND LOSS.	CR.	
1893.		\$ cts.	1893.	\$ cts.
Dec. 31	General repairs	2,373 21	Dec. 31	Balance per ledger folio 433
	Charges	300 00		Harbour dues
	Lights, buoys and beacons	112 95		Canadian Pacific Ry. Co.
	Fire insurance	141 33		Balance to credit of break-
	Printing and stationery	46 01		water account
	Office rent and expenses	756 45		Interest on deposit in bank ...
	Dredging	789 97		
	Salaries	2,665 75		
	Interest on debentures	2,625 00		
	Solicitor's account	350 00		
	Engineer's account, special reports	75 00		
	Advertising for tenders	36 25		
	Debentures (not matured)	35,000 00		
	Canadian Pacific Ry. (rebate)	10 00		
	Balance to credit of profit and loss	31,475 24		
		76,757 16		59,382 20
				8,478 32
				5,000 00
				3,728 85
				167 79
				76,757 16

Audited and found correct.

TORONTO, 3rd January, 1894.

C. B. GRASSETT,
W. R. HARRIS,
Auditors.

COMPARATIVE STATEMENT.

Goods arrived per Steamer and Vessel for the years 1892 and 1893.

Description of Goods.	1892.	1893.	Description of Goods.	1892.	1893.
General merchandise..... tons	10,818½	12,000	Fruit	2	50
Coal..... "	161,559	126,285	Bricks, common.....	1,103,000	482,000
Lake stone..... tonse	4,078½	3,454	Lumber..... ft. b. m.	162,000	60,000
Building stone..... tons	1,015		Grain..... bushels	66,970	101,870
Moulding sand..... "	197	60	Pigs.....		50
Fruit..... barrels	3,763	3,826	Horses, horned cattle, &c....	384	250
do..... boxes	7,653	4,515	Ice..... tons	540	
do..... baskets	105,134	187,026			

COLIN W. POSTLETHWAITE,

Deputy Harbour Master.

TORONTO, 3rd January, 1894.

FORTY-THIRD ANNUAL REPORT.

To the Commissioners of the Harbour of Toronto :

GENTLEMEN,—I have the honour to lay before you my annual report for the year 1893.

The bay was clear of ice on the 7th of April, and was frozen over on the 8th December, 28 days earlier than last year. This was broken up by the wind, was frozen again on the night of the 10th, was open again on the 25th, and frozen once more on the night of the 30th December.

The first vessel with freight to arrive was the "Lillian," with stone, on the 4th of April. The master, Richard Smith, got the customary hat. The "Van Straubenzie" came in light from Oswego on the 1st of April.

The number of arrivals at this port was 2,577.

	1892.	1893.	Increase.	Decrease.
Steamers, loaded.....	1,289	1,340	51	
" light.....	2	10	8	
Propellers, loaded.....	121	133	12	
" light.....	94	55	..	39
Schooners, loaded.....	1,347	1,012	..	335
" light.....	63	27	..	36

The number of vessels wintering here is 73, viz., 22 schooners, 9 steamers, 4 propellers, 11 steam yachts, 19 sail yachts and 8 tugs—altogether of about 11,267 tons. There are also 4 dredges and 20 scows.

The cash receipts from all sources, including cash on hand from last year, amount to \$29,256.28. Expenses of all kinds amounted to \$16,408.07, leaving cash on hand and on deposit \$12,845.21.

The amount of coal received this year by vessel is 126,285 tons, a decrease of 35,274 tons, and caused principally, I think, by the temporary assignment of the Ontario Coal Company, which was one of the largest coal importers in the city.

The amount of coal imported by rail as per information received from the custom-house was 220,849½ tons bituminous, 184,093 tons anthracite; in all 404,942½ tons. Total by rail and vessel 531,227½ tons.

Sheet piling, as recommended by the engineer, was put down from the south-easterly point of the breakwater to the northerly end of the spit of sand from the island, Armour of Hamilton, being the contractor. He was rather behind hand in his

Steamboat Inspection

work, and when nearly finished a very heavy storm set in and carried the pile-driver and the spiles out into the lake. This occurred on the night of the 20th of April, and the work had to be commenced *de novo*; it also necessitated a change in the work. The washing out of the spiles disturbed the sand, causing a washout of a channel of about eighty feet long by eleven feet deep. Dredging had formerly been done here by the Dominion Government. In this channel had to be sunk a crib 90 x 12 x 13½ feet; the balance of the work was done with a double row of sheet piling filled with stone. Medler & Arnot of this city were the contractors and have done their work to the satisfaction of the engineer, and before long the sand is expected to fill in to the breakwater.

As the Garrison creek sewer which empties into the water just west of the Queen's wharf, is becoming an active factor in reducing the depth of water at the entrance of the harbour, I think it would be advisable to extend the wharf some two hundred or three hundred feet to the west, which will, for some time to come, counteract this. This extension will also obviate the danger of any vessel striking on a stone shoal to the west of the channel on which a black buoy is placed during navigation.

Vessels lately, drawing over eleven feet of water, have had to open the lights to the eastward to enable them to get in, and as the water to the west of the range is very shoal there will need to be considerable dredging done there in the spring. There is also a shoal lately formed to the east of the eastern entrance of the channel, on which two or three vessels touched this fall. There was fourteen feet of water there when sounded by Capt. Taylor in the spring.

The water on the 1st of January was a half an inch below zero and fell to 9 inches below on the 7th of February. It then began rising; was 1 inch below zero on the 19th March, continued rising until it reached its highest, 27 inches above zero, on the 1st June, kept pretty steady through July, then began to fall; was at zero on the 16th November, was 3½ below on the 24th, and ended the year at 3½ above.

Highest water, 27 inches above zero 1st June.

Lowest water, 9 below zero 7th February.

Average for the year 8½ inches above zero.

The lights were lighted on the night of the 5th of April, and were discontinued on the 12th December.

The Dominion Government have paid \$10,000, the balance of the money promised to the Commissioners towards the building of the breakwater, and this money has been placed on special deposit and forms a sinking fund to meet maturing debentures.

The buoys were placed out by the 3rd May; some of the can buoys had to be replaced on the 24th October, having been carried away in a heavy easterly gale and were all taken in by the 4th of December.

The fog-horn was in use thirty-four days this season—thirteen days less than were required last year. Two days in April, 4 in May, 10 in June, 3 in July, none in August, 2 in September, 5 in October, 5 in November, and 3 days in December.

E. B. Temple, Esq., resident engineer for the Dominion Government work at the easterly "Gap," reports:

"The breakwater pier connecting Fisherman's Island with east pier at eastern channel is completed; also 2,200 lineal feet of the east pier. In addition 900 lineal feet of cribbing has been sunk on the west side of the channel."

I have much pleasure in testifying to the zeal and ability with which my deputies, Mr. C. W. Postlethwaite and Capt. Taylor, have discharged their respective duties.

All of which is respectfully submitted.

MORGAN BALDWIN,
Harbour Master.

January 3rd, 1894.

TORONTO HARBOUR WORKS.

TORONTO, 2nd January, 1894.

SIR,—I have the honour to report that the lowest tender for dredging required in the harbour during the year, after due advertisement, was that of Messrs. Manning & McDonald, viz., 12½ cents per cubic yard, and \$6.50 per hour, which was accepted, and the following dredging was done :

Western channel, 18 hours at \$6.50, \$117.00.	
Scott street slip.....	700 cubic yards.
George street slip.....	1,200 “ “
Elias Rogers' slip.....	2,450 “ “
Elias Rogers' old wharf.....	550 “ “
Total.....	4,900

The water level was low during the past year.

The General Superintendent of the Canadian Pacific Railway having applied for sundry repairs to the grain elevator at the Queen's wharf, to render it weather proof, in accordance with your instructions, I made the necessary examination, and recommended that the outside should be covered with corrugated galvanized iron. Tenders were received for the work, the lowest being that of Douglas Bros., Toronto. The covering of the walls and roof was completed in June last. As the woodwork of the frames and sashes of the elevator, trestle work and fences around the same, required painting with fireproof material, tenders were also received for the work, the lowest being that of R. J. Hovenden, Toronto. The painting was done in July, and the elevator is now in a satisfactory condition.

The Queen's wharf, lighthouses, light-keeper's house and premises are in good state of repair, and will not require much expenditure for some time.

In accordance with the recommendation in my report last year, that sheet piling should be constructed in a southerly direction from the east end of the breakwater, 500 feet in length, to facilitate the formation of sand south of the breakwater, which was approved by the board, plans and specifications were prepared and tenders received for a single row of sheet piling, and the tender of J. F. Armour, Hamilton, was accepted. The time for the completion of the sheet piling was specified to be the 1st of May last, but owing to delays in procuring materials, and damage by severe storms during the spring, the work was not completed until the 30th of June. Shortly after completion a severe gale from the west washed away about 90 feet of the sheet piling, where a channel had been dredged in the bar by the Dominion Government in 1876 with the intention of making the channel 700 feet wide, and a depth of 18 feet water on the southern side, but this improvement was not recommended by Capt. Eads, in his report on the harbour. To meet this difficulty, and to ensure the permanence of the work already done, to resist future storms, I further recommended that cribwork should be placed in the opening, and an additional row of sheet piling, 12 feet east of the first row and partly filled with stone. Tenders were received, after due advertisement, and the tender of Messrs. Medler & Arnot, being the lowest, was accepted. The work was commenced in August, and completed in October, and notwithstanding severe autumn gales, the sheet piling, &c., is in good condition.

I remain,

Your obedient servant,

KIVAS TULLY,

Engineer.

A. B. LEE, Esq.,
Chairman, Toronto Harbour Commissioners.

Steamboat Inspection.

APPENDIX No. 5.

REPORT OF THE HARBOUR COMMISSIONERS OF BELLEVILLE FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

BELLEVILLE, 22nd January, 1894.

To the Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—The Harbour Commissioners of the city of Belleville beg to submit herewith a statement of the receipts and expenditure in connection with the harbour for the year ending 31st December, 1893.

The receipts from harbour dues were less than last year, for the reasons explained by the harbour master in his annual report herewith inclosed.

In explanation of the expenditure under the heading of "Dredging," the Commissioners beg to say that this sum was expended in blasting rock in the bed of the river to facilitate the work done by the dredge "Queen" in deepening the channels.

A further report of this, as well as other harbour work done under his supervision, by Mr. W. W. Lee, superintendent, is herewith presented.

For the purpose of removing the obstruction on the west bank of the river, known as the "Ashery Point," is recommended by the Chief Engineer of the Public Works Department; it was suggested that the city authorities should purchase the property, and give the Commissioners a lease with the privilege of removing any part of it. This has been done. The sum of \$400 (the amount of the purchase money) has been paid over to the city in consideration of which the city authorities have given the Commissioners a lease of this property for twenty-one years, at the nominal rental of \$1 per annum.

The work done by the Government dredge "Queen" during the past season has been very satisfactory, and will no doubt assist materially in lessening the effects of the spring freshets, and the Commissioners express the hope that this work, which is being done upon the lines recommended by the Government engineers, may be continued during the coming season. All of which is respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

GEORGE WALLBRIDGE,

Chairman, Board of Harbour Commissioners, Belleville, Ont.

DOMINION OF CANADA,
PROVINCE OF ONTARIO,
County of Hastings.
To wit:

In the matter of the report of the Harbour Commissioners of the City of Belleville for the year ending 31st December, 1893.

I, George Wallbridge, of the city of Belleville, in the county of Hastings, merchant, do solemnly declare that:

1. I am chairman of the Harbour Commissioners of Belleville.
2. That hereunto annexed is a statement of the receipts and expenditures of the Harbour Commissioners of Belleville for the year ending 31st December, 1893.
3. That the said statement is true and correct as therein set forth.
4. That nothing is wilfully omitted therefrom which should be stated therein, or improperly inserted therein, to the best of my knowledge, information and belief.

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the "Act respecting Extra-Judicial Oaths."

Declared before me at the city of Belleville,
in the county of Hastings, the 23rd day
of January, in the year of our Lord 1894.

GEO. WALLBRIDGE.

CURTIS BOGART,

A Commissioner, &c., in H.C.J.

STATEMENT of the Receipts and Expenditure of the Harbour Commissioners of Belleville, Ont., for the year ending 31st December, 1893.

Dr.

Cr.

<i>Receipts.</i>	\$ cts.	\$ cts.	<i>Expenditure.</i>	\$ cts.	\$ cts.
Harbour Dues—Collected for the year as per Harbour Master's statement.....	3,126 45	3,126 45	Piers and Buoys—Including new pier, removing piers from river channel and replacing same, also placing of buoys, &c.	294 03	
			Booms—Swinging and removing.....	100 00	
			Ice Cutting—Cutting of channels in mouth of river, also blasting of ice during freshet.....	536 93	
			Dredging—Rock blasting in bed of river, in connection with dredging.....	828 54	
			Harbour Improvement—Lease of Ashery Point for purposes of removal.....	490 00	
			Salaries—		
			Harbour Master's salary (12 mos.).....	\$ 600 00	
			Tally clerk.....	78 50	
			Office expenses—		
			Rents, \$16; fuel, \$4.55.....	\$ 20 55	
			Stationery and postage.....	4 00	
			Sundries.....	8 00	
Balance on hand, 1st January, 1893.....	215 70	215 70	Balance on hand (in bank).....	32 55	2,870 55
					471 60
					3,342 15

E. & O. F.

This is the statement of receipts and expenditures referred to in the declaration of George Wallbridge taken before me this 3rd January, 1894.

CURTIS BOGART,

A Commissioner, &c.

Steamboat Inspection.

BELLEVILLE, ONT., 1st January, 1894.

GEO. WALLBRIDGE, Esq.,
Chairman of the Board of Harbour Commissioners,
Belleville, Ont.

SIR,—I beg to report as follows for the year ending 31st December, 1893.

Acting on your instructions in early spring of 1893, and in order to give relief during freshet, a channel was cut in the ice at the mouth of the River Moira, from which good results were obtained.

On the recommendation and under the supervision of Mr. Howden of the Department of Public Works, considerable blasting was done to break up the very large "ice-jams" at the mouth of the river, and there can be no doubt whatever, but that this contributed in a great measure to prevent what might have been a very serious damage to the surrounding property.

On close examination of the work done on "Mill Island" (completed in 1892) it was found that there was no settlement at all in the embankment and that the "ripping" was not in the least disturbed by the action of ice during the winter, the whole being in as perfect condition as when first completed.

Excellent work has been done by the dredge "Queen" in the river channel, and in order to facilitate the dredging we blasted all rock in advance of the dredge, already this winter we consider that the "new cut" has given good results in allowing the unusual quantities of anchor ice (*frazil*) to get away, and thus preventing any flooding of surrounding property.

We would especially recommend that this river channel should be completed this coming season, and also (in order to take advantage of using the dredged material) that the westerly bank of river should be finished up, and all old wharfs and obstructions removed.

Under your instructions a further 20 feet in width was cut off "Ashery Point," this should be of some benefit this coming spring, in allowing the ice to move more freely out of the river.

As anticipated (see report for 1892) the cribbing on east side of the river proved a great protection to property, no damage being sustained, although the ice shove in the spring of 1893 was unusually severe.

All of which is respectfully submitted.

Your obedient servant,
W. W. LEE,
Superintendent.

DOMINION OF CANADA, }
PROVINCE OF ONTARIO, } In the matter of the report of the harbour master
County of Hastings. } of the city of Belleville, for the year ending 31st
December, 1893.

To wit:

I, Daniel Collins, of the city of Belleville, in the county of Hastings, harbour master, do solemnly declare:

1. That I am harbour master at the city of Belleville.
2. That my report hereunto annexed contains a true, correct and full statement of the revenue from the harbour at the city of Belleville, for the year ending on the 31st December, 1893.
3. That the said report is in all other respects true and correct to the best of my knowledge, information and belief.

And I make this solemn declaration conscientiously believing the same be to true, and by virtue of the "Act respecting Extra-Judicial Oaths."

Declared before me at the city of Belleville, }
in the county of Hastings, this 23rd }
day of January, in the year of our Lord }
1894. }

D. COLLINS,
Harbour Master.

CURTIS BOGART,
A Commissioner, &c., in H.C.J.

To the Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—The undersigned, Harbour Master of the city of Belleville, begs to submit the following report for the year 1893.

Navigation opened in Belleville harbour on the 18th day of April, and closed on the 2nd day of December.

The amount of dues collected during the season are as follows :

Import dues on 14,763 tons coal, less rebate on 93½ tons transhipped.....	\$1,471 63
Import dues on 1,900 tons merchandise.....	190 00
Sundries.....	8 69
Export dues on 145,178 bushels grain.....	131 53
do logs, timber, &c.....	1,232 55
do 920½ tons merchandise.....	92 05
	<hr/>
	\$3,126 45
	<hr/>
The amount derived from imports.....	\$1,670 32
The amount derived from exports.....	1,456 13
	<hr/>
	\$3,126 45

The amount of dues collected this year is somewhat less than last year, the deficiency consists principally in coal, there being only 14,673 tons imported this year, as compared with 17,353 tons last year.

This may be accounted for from the fact that the quantity imported in the former year was not all consumed, but carried over to this year ; also in the number of logs coming down the Moira River being smaller than the previous year.

The farmers finding it more profitable to feed their coarse grain to cows and hogs than to sell it, lessened the dues collected from this source.

The dredge has done good work in deepening the channel, and in removing some of the difficulties that were to be met on entering the harbour, but a good deal remains to be done to make the harbour entirely free from obstructions.

All of which is respectfully submitted.

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

D. COLLINS,
Harbour Master.

This is the report of Daniel Collins referred }
to the declaration of said Daniel Collins }
taken before me, this 23rd January, }
1894.

CURTIS BOGART,
A Commissioner, &c., H.C.J.

Steamboat Inspection.

APPENDIX No. 6.

REPORT OF THE HARBOUR COMMISSIONERS OF QUEBEC FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1893.

QUEBEC, 25th January, 1894.

W. M. SMITH, Esq.,
Deputy Minister of Marine, Ottawa.

SIR,—I have the honour to transmit you, herewith, the Commissioners' report, in duplicate, with its inclosures, for 1893, prepared in conformity with the requirements of the 38th Victoria, chapter 55, section 14, and also a complete statement of the Commissioners' accounts for the year.

I have the honour to be, sir,

Your most obedient servant,

JAS. WOODS,
Secretary-Treasurer.

HARBOUR COMMISSIONERS' REPORT FOR THE YEAR 1893.

(Under 38th Victoria, Chapter 55, Section 14.)

QUEBEC, 2nd January, 1894.

To the Honourable

SIR CHARLES TUPPER, K.C.M.G.,
Minister of Marine and Fisheries, etc., etc.,
Ottawa.

SIR,—In compliance with the requirements of the 38th Victoria, chapter 55, section 14, I have the honour to report as follows on the doings of the Quebec Harbour Commissioners for the year 1893.

CHIEF ENGINEER'S REPORT.

The annexed report (marked "A 1") from the Chief Engineer, Mr. St. George Boswell, conveys all the information in relation to the harbour works, and the various additions and repairs made to them and to the other properties of the Commissioners during the year.

WHARFINGER'S REPORT.

The annexed report (marked "A 2") from the Wharfinger, Mr. Jas. F. Golden, gives all the usual information regarding the number of vessels using the Louise Docks, and the surface traffic over this portion of the Commissioners' property during the year 1893.

REVENUE AND EXPENDITURE.

The Commissioners' revenue for 1893 was sixty-seven thousand eight hundred and ninety-nine dollars and nine cents (\$67,899.09), and the working expenses, thirty-one thousand one hundred and thirty-one dollars and twenty-five cents (\$31,131.25), thus leaving a surplus of thirty-six thousand seven hundred and sixty-seven dollars and eighty-four cents (\$36,767.84) on the year's operation. Included in this surplus of \$36,767.84 is the charge of thirteen thousand eight hundred and forty-five dollars and forty-eight cents (\$13,845.48) for rent of ground occupied by immigration buildings.

CAPITAL ACCOUNT.

The following amounts have been paid on capital account :—

Tools and material	\$	158	13
“ Bulge ” embankment		4,945	65
Harbour improvement		4,610	06
Pointe-à-Carcy wharf reconstruction		3,836	62
Breakwater wharf reconstruction		1,431	29
Pointe-à-Carcy wharf, deepening inside face		31,403	63
	\$	46,385	38

Making a total expenditure of \$46,385.38.

PREMISES LEASED.

The only change that has taken place in the properties leased by the Commissioners is that East India and Atkinson's wharfs, for many years in the occupancy of the late Mr. John Baile was, after his death and closing up his business, leased to Messrs. G. M. Webster & Co., coal merchants, at a slightly increased rental.

BALLAST.

Ten thousand three hundred and ninety-five tons of ballast, carried by 29 sailing vessels has been discharged into Pointe-à-Carcy wharf, and utilized in the reconstruction of that property.

This ballast, a large portion of which consisted of good stone, cost the Commissioners \$955, or an average of about 9 cents per ton, and would, if it had to be procured from bateau men or others in the usual manner, cost at the least 40 cents per ton.

A large area of the front part of Pointe-à-Carcy wharf yet remains to be filled, and as only two vessels can lay at the wharf at the same time for discharging purposes, it is expected that it will take two more seasons to complete this filling ; but when this is done, the wharf will be for the first time a solid construction, and the continued yearly expense now necessary to keep it in repair, will, to a large extent, be done away with.

In addition to the above, six vessels with 1,770 tons of ballast have discharged into the property of the Louise Wharfage and Warehouse Company, and eight vessels, with 2,039 tons, into the newly constructed wharf of the Richelieu and Ontario Navigation Company, the cost of towage and pilotage, in both of these cases, being paid by the owners of the properties.

The Commissioners desire, as far as it can possibly be effected, to prevent the dumping of this valuable material into the river, and to utilize it by filling their own and other properties along the river front, and, at the same time, not to increase the cost of discharging the ballast to the vessel.

REPAIRS TO PROPERTY.

Careful attention has been given to the properties of the Commissioners during the year, to maintain and bring them up to a first-class condition. In this connection, it may be noted that considerable extra work was done to Pointe-à-Carcy stores and Marmette's wharf (forming part of Atkinson's) in re-sheathing stores and planking wharf. The front portion of Pointe-à-Carcy wharf is still under reconstruction, and as the principal work now to be done is the filling, it may take one or two more seasons to complete, if ballast from vessels is solely used for this purpose. Details concerning this and other properties will be found in the chief engineer's report.

POINTE-À-CARCY WHARF, DEEPENING INSIDE FACE.

This work, the construction of which was authorized by the Honourable the Minister of Public Works, was commenced in July last, and since then considerable progress has been made. Up to the close of the year \$31,403.63 have been expended

Steamboat Inspection.

in the construction of cribwork, four blocks of which are now so far advanced as to be ready to be sunk in the spring.

When completed this work will not only do away with the dangerous shoal, now a constant source of danger to all vessels entering the docks; but will give an increased water frontage of 600 feet long for steamships drawing 30 feet of water, and will largely increase the surface area and value of Pointe-à-Carcy wharf.

GRAIN ELEVATOR AND FLOUR SHED.

On the ground conceded by Commissioners to the Canadian Pacific Railway Company, on the embankment, that company have erected a grain elevator of a capacity of 250,000 bushels, and it is now fully equipped and ready to be operated at the opening of navigation. A very satisfactory test of its working was made on the 1st December last, in the presence of the Commissioners and a number of prominent business men of the city.

The brick building, directly opposite the grain elevator, which the Commissioners purchased from Messrs. N. K. and M. Connolly, has been sold by them to the Canadian Pacific Railway Company, who have completely remodelled it, and converted it into an excellent flour shed; here it is their purpose to handle flour in bags or barrels destined for shipment to foreign ports.

ICE BRIDGE AT CAP ROUGE.

Early in April, the ice at Cap Rouge presenting every appearance of proving a formidable barrier to the early opening of navigation, it was decided to attempt to weaken or remove it by the use of explosives, and at the request of the Commissioners, this work was kindly undertaken by Lieut.-Colonel Montizambert, Commandant, R.S.A., who, on the nineteenth of same month, made an attempt to do so, which did not prove to be successful.

On the first day of May, a large fleet of ocean steamers, bound for Montreal, having arrived in the harbour, and being obliged to take shelter in the Louise Docks on account of this ice, Lieut.-Colonel Montizambert was again requested to make another attempt, if ice had not moved with the next morning's tide. This renewal of operations was not required, as the ice moved away with the tide.

BY-LAW.

A by-law passed by Commissioners on the 16th day of May, 1892, giving them, through their harbour master, more complete control over the mooring and placing of vessels in the Louise Docks and other property under this management, received the sanction of His Excellency the Governor General in Council on the 28th February, 1893, and has since been in successful operation.

ICE CUTTING.

Permits were given to Messrs. Boswell & Bro., and Proteau & Carrignan, brewers, to cut ice in the inner basin, Louise Docks, on the same conditions as mentioned in the report for 1892, that is, that the ice so cut would be used for cooling purposes only.

Thirty-nine thousand four hundred and fifty-six (39,456) blocks of ice, all for local use, have been cut during the winter of 1892-93, an increase of eight hundred and (813) blocks over the harvest of the previous year.

To this report are annexed the various statements conveying the information yearly forwarded to your department in connection with the harbour, and also a complete statement of the Commissioners' accounts for the year.

I have the honour to be, sir,

Your most obedient servant,

J.A.S. WOOD,

Secretary-Treasurer.

HARBOUR ENGINEER'S OFFICE,
QUEBEC, 3rd January, 1894.

JAMES WOODS, Esq.,
Secretary-Treasurer, Harbour Commission.

SIR,—I have the honour to submit the following report, relative to the various works executed during the season of 1893.

PRINCESS LOUISE EMBANKMENT.

The work of securing the defective portion of the wet dock quay wall, known as the "Bulge," and situated at its western extremity, was undertaken during the winter of 1892-93, and was successfully completed by the opening of navigation in the spring. These repairs consisted essentially in anchoring the defective portion of the quay wall by means of 37 two-inch steel rods, to a line piling supported by a boulder wall placed on the original surface of the ground, at a distance of 80 feet back from the face of the wall.

GRAIN ELEVATOR AND FLOUR STORE.

In accordance with the terms of an agreement entered into with the Commissioners, the Canadian Pacific Railway Company undertook the construction of a grain elevator of 250,000 bushels capacity, and also a large flour store, on the embankment during the past winter. To provide facilities for expeditiously handling the grain cars destined for this elevator, without interfering with the ordinary traffic on the embankment, it became necessary to provide an independent railway track; this has accordingly been done by laying down a new track on the north side of the carriage roadway, for the special use of grain cars.

The portion of the embankment utilized for immigration purposes by the Federal Government has been fenced in by the Public Works Department, thereby isolating it from the remainder of the embankment.

A new building of two stories in height, measuring 80 by 38, to be used as a carpenters' shop, a blacksmiths' forge and a store house, has been erected on the embankment, opposite the weigh-house, and north side of the carriage roadway.

BALLAST WHARF SHEATHING.

The sheathing of this wharf with 3-inch tamarack deals, on the eastern and southern fronts, and the renewing of the finders on the same portion, was completed during the past season.

DEEP WATER FACE TO THE POINTE-À-CARCY WHARF.

The construction of the foundation cribwork blocks for this work was begun early in August last; since which date 4 blocks, measuring 150 feet long by 40 feet wide and 25 feet high, each, have been completed, and are now wintering in the Tidal Basin.

POINTE-À-CARCY WHARF.

The eastern and southern faces of this wharf have been sheathed with three-inch tamarack deals, a large portion of the interior of the wharf filled up to coping level with ship's ballast, and a new railway siding placed along the southern face of the Quebec Harbour Commissioners' warehouse No. 1, during the past season.

The Canada plate sheathing of the two warehouses Nos. 1 and 2, situated on this wharf, has been repaired and renewed, and the buildings painted.

The sheathing on one-half of the roof of store No. 2 was also renewed. Minor repairs have been made to the various buildings owned by the Commissioners, and the sheathing of the stores Nos. 4, 7, 8 and 11, when found to be defective, has been renewed.

Steamboat Inspection.

The wharf known as Marmette's and occupied by Messrs. A. R. Pruneau & Co., as a coal wharf, has been replanked with four-inch pine deals.

The cross-wall draw bridge was operated, for the first time for the season, on April 18th, and for the last time, on December 4th. The water was retained in the wet dock, for the first time during the season, on May 29th, and for the last time on November 4th.

On October the 17th and 18th, the entrance gates to the wet dock were not opened for the day tide. The water, on the 17th, being only raised to 9 feet 3 inches above low water mark, and on the 18th, to 9 feet 7 inches above the same datum.

I have the honour to be, sir,

Your obedient servant,

St. GEORGE BOSWELL,

Chief Engineer.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 23rd January, 1894.

JAS. WOODS, Esq.,
Secretary-Treasurer, Harbour Commission,
Quebec.

SIR,—I have the honour to submit the following with reference to the traffic of the Louise docks and wharfs.

During the past season 69 ocean mail steamships of 170,229 tons register, used the docks for landing immigrants' baggage, and 5,246 tons Quebec and western freight.

Twenty-three steamships lightered 606 tons Quebec freight and also landed their immigrants.

Seventeen ocean steamships of 26,686 tons register, landed 4,000 tons Quebec freight.

Eleven steamships of 11,081 tons register, used the docks discharging their full cargoes of 21,847 tons coal.

Twelve sailing ships of 11,826 tons register, landed 14,098 tons coal, and 7 barges of 650 tons register, discharged 1,585 tons coal. Seven schooners of 767 tons register, discharged 1,002 tons coal.

Twenty-six sailing ships, of 28,439 tons register, have used the docks loading full cargoes timber and deals. Six ocean steamships of 7,800 tons register, have also used the docks loading full timber and deals, and the surface traffic has required the employment of 3,550 railway cars.

IMMIGRATION TRAFFIC.

During the past season the different ocean mail steamships landed 26,000 steerage passengers at the immigration station, Louise docks (an increase over last year of 12,000 immigrants) who were forwarded to their future homes by the Canadian Pacific Railway Company.

No record has been kept of cabin passengers.

The ss. "Blue Star" and ss. "Lycia," deal loaded outward, having collided in the harbour off the city, the latter having only sustained slight damage was put into outer basin, repaired and proceeded to sea.

The ss. "Blue Star," having sustained considerable damage, the survey found it necessary to put her into the inner basin, where she discharged a large portion of her cargo on the dock before repairing, same being made, she was reloaded there, and proceeded to sea.

The ss. "Alcides," in a damaged condition, having grounded on her way inwards with a full general cargo off East point, Anticosti, after being got off, was towed into Louise Basin and discharged there, prior to going into graving dock.

The ss. "Oxen Holme," on her outward trip, collided with and sunk "Barque Columbus," off Cape Magdalen, was towed into Louise docks, having previously discharged her cattle cargo. After completing repairs there and reloading her cattle, she proceeded to sea.

Owing to the river being closed by the Cap Rouge ice, the following ocean steamships took shelter in the Louise docks, from their arrival to the 3rd May, the date on which the channel cleared :—

Arrival.

April 20th—ss. Charrington,
do 27th—ss. Lake Huron,
do 27th—ss. Fremona,
do 30th—ss. Euskaro,
do 30th—ss. Texas,
May 1st—ss. Sardinian,
do 1st—ss. City of Lincoln.

The freight sheds on the cross-wall are utilized during the winter months for storing flour and salt, which the owners are obliged to remove before the opening of navigation.

The docks are used from the 20th November for wintering a large number of ocean and local vessels of various tonnage, where they find safe quarters to the opening of navigation.

I have the honour to be, sir,

Your most obedient servant,

JAS. F. GOLDEN,

Wharfinger.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 31st December, 1893.

STATEMENT showing the movement of the coasting trade of the harbour for the season of navigation of 1893 (as reported at this office).

Cargoes by schooners	869
do bateaux	488
do barges	89
do steamboats	251
Tonnage	334,278
Crews, men	15,364
Passengers	59,758

Steamboat Inspection.

QUEBEC HARBOUR COMMISSION.

STATEMENT showing the cost of the Quebec Harbour Works up to the 31st December, 1893.

Nature of Works.	Total Expenditure, including Interest, &c.	Reduction effected under 51 Vic., cap. 6, representing Interest and Sinking Fund paid out of Capital.	Amount of Harbour Commissioners' Sinking Fund and accumulations which by 51 Vic., cap. 6, has become part of Consolidated Revenue of Canada.	Net Reduction.	Net Cost of Works.	Total Amount received from Federal Government.	Total Amount voted.	Designation of Statutes authorizing expenditure.	Amount available.	Remarks.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.		\$ cts.	
Harbour improvements.....	3,290,974 25	Int. 378,670 05 S. F. 17,329 95	223,929 23	Int. 154,740 82 S. F. 17,329 95	3,136,233 43	2,889,802 42	3,252,000 00	36 Vic., cap. 62 43 do 17 45 do 47 47 do 9 49 do 19 50-51 do 41	362,137 58	The debt of the Commission amounting to \$723,000 redeemed under 36 Vic., cap. 62, is not included in this statement.
		396,000 00		172,070 77						

Certified, **JAMES WOODS,**
Secretary-Treasurer.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 2nd January, 1894.

TIDE Register for 1893 from a gauge at the Lévis Dry Dock, the zero of which is level with the sill of the dock or 7 feet below low water spring tides.

<p>January—Highest tide, 25' 10" on 31st, 6.15 p.m. Lowest do 5' 0" on 30th, 5.10 p.m., West wind during 24 days. East do 7 days. Lowest temperature, 14° on 12th. Highest do 34° on 2nd.</p>	<p>July—Highest tide, 27' 0" on 15th, 7.30 a.m. Lowest do 8' 6" West wind during 28 days. East do 3 days. Lowest temperature, 62° on 7th. Highest do 93° on 2nd.</p>
<p>February— Highest tide, 27' 4" on 19th, 9.00 a.m. Lowest do 4' 6" on 17th, 7.10 a.m. West wind during 22 days. East do 6 days. Lowest temperature, 10° on 8th. Highest do 30°</p>	<p>August—Highest tide, 26' 9" on 12th, 6.35 a.m. Lowest do 7' 9" on 10th, 4.45 a.m. West wind during 17 days. East do 14 days. Lowest temperature, 55° on 31st. Highest do 94° on 11th.</p>
<p>March—Highest tide, 27' 3" on 21st, 8.25 a.m. Lowest do 5' 0" on 17th, 7.15 a.m. West wind during 17 days. East do 12 days. North do 2 days. Lowest temperature, 0° on 19th. Highest do 41° on 13th.</p>	<p>September—Highest tide, 26' 8" on 28th, 8.20 p.m. Lowest do 8' 0" on 9th, 5.30 a.m. West wind during 23 days. East do 7 days. Lowest temperature, 40° on 30th. Highest do 75° on 14th.</p>
<p>April—Highest tide, 28' 6" on 18th, 7.00 a.m. Lowest do 6' 0" on 2nd, 7.15 a.m. West wind during 19 days. East do 11 days. Lowest temperature, 8° on 6th. Highest do 56° on 17th.</p>	<p>October—Highest tide, 27' 0" on 26th, 7.00 p.m. Lowest do 8' 6" on 8th, 5.35 a.m. West wind during 20 days. East do 11 days. Lowest temperature, 30° on 30th. Highest do 67° on 13th.</p>
<p>May—Highest tide, 30' 0" on 17th, 6.40 a.m. Lowest do 7' 3" on 1st, 6.30 a.m. West wind during 17 days. East do 14 days. Lowest temperature, 35° on 2nd. Highest do 77° on 11th.</p>	<p>November—Highest tide, 26' 8" on 22nd, 5.15 p.m. Lowest do 7' 7" on 25th, 7.35 p.m. West wind during 23 days. East do 7 days. Lowest temperature, 12° on 26th. Highest do 52° on 4th.</p>
<p>June—Highest tide, 28' 6" on 15th, 6.30 a.m. Lowest do 9' 0" West wind during 16 days. East do 14 days. Lowest temperature, 56° on 3rd. Highest do 88° on 30th.</p>	<p>December—Highest tide, 27' 6" on 25th, 8.08 p.m. Lowest do 6' 8" on 21st, 4.38 a.m. West wind during 20 days. East do 11 days. Lowest temperature, 16° on 14th. Highest do 36° on 10th.</p>

The observations for temperature are taken at 7.00 a.m. and 3.00 p.m. in the shade

U. VALIQUET,
Superintendent Dry Dock.

January 4th, 1894.

Steamboat Inspection.

QUEBEC HARBOUR COMMISSION.

MEMORANDUM regarding the Opening and Closing of Navigation and the formation of the ice in the harbour of Quebec for the year 1893.

Schooner "Anna McGee" with passengers from Seven Islands arrived in port the 1st April.

The ice in the tidal basin and wet dock broke up the 18th April.

The River St. Charles and Orleans ice broke up and cleared the 30th April.

Steamboat "Quebec" of the Richelieu and Ontario Line arrived in port the 6th May.

The first ocean steamer, ss. "Charrington," arrived on the 20th April, and the second, the ss. "Lake Huron" arrived on the 26th April.

The first ship-bark "H. B. Cann" arrived in port 5th May.

The last ocean mail steamer, ss. "Brazilian" left port the 20th November.

The last freight steamer ss. "Thames," left port the 24th November.

The last sailing vessel "Kings County," left the port on 22nd November.

On the 4th December both the River St. Charles and the two basins were frozen over.

The ice bridge formed to island of Orleans on the 14th December.

JAS. WOODS,
Secretary-Treasurer.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 2nd January, 1894.

QUEBEC,
STATEMENT of Assets and Liabilities per Balance Sheet to Date. CR.

1893.	ASSETS.	\$ cts.	1893.	LIABILITIES.	\$ cts.	\$ cts.
Dec. 31.	Real estate—		Dec. 31.	Quebec Harbour Debentures	3,612,802 42	
	Breakwater wharf	225,470 83		Receiver-General	43,380 00	3,656,182 42
	Pointe-à-Carey do	285,902 97		Surplus, composed as follows—		
	East India do	48,552 99		Beach and deep water lots	54,223 53	
	Grand Trunk do	15,740 82		Profit and loss	380,161 02	434,384 55
	Wellington do	86,541 85				
	Atkinson's do	51,003 20				
	Reynar's do	9,918 29				
	Harbour improvements	723,230 45				
	Cash on hand	838 01				
	do deposit	20,931 46				
	<i>In re</i> beach and deep water lots—					
	Capital due by proprietors	34,756 84				
	Arrears of interest to date	6,61 16				
	Rents, wharfage and storage—					
	Due on same to date as per balance sheet, in-					
	cluding unsettled claims against Govt.					
	Pointe-à-Carey, deepening	129,171 21				
	Jackscrows on hand	31,403 63				
	do	394 87				
	Anchors do	245 50				
	Tools do	1,904 41				
	Material do	124 63				
	Office furniture	3,572 57				
	Bills receivable	1,142 80				
		4,090,566 97				4,090,566 97

JAS. WOODS,
Secretary-Treasurer.

We hereby certify that we have examined the statement of assets and liabilities of the Quebec Harbour Commissioners on the 31st December, 1893, and that we have found the same correct.

A. GABOURY, }
A. AHERN, } *Auditors.*

Steamboat Inspection.

Cr.

BALANCE SHEET of 31st December, 1893.

Dr.

	\$ cts.	\$ cts.
To Office furniture.....		
Amount at debit grantees.....		
Beach and deep water lots.....		54,223 53
Amount at debit, sundries for rents, wharfage, &c., including unsettled claims against Government.....	3,572 57	43,380 00
Breakwater wharf.....	40,397 48	3,612,802 42
Pointe-à-Carcy wharf.....	127,394 65	380,161 02
East India do.....	225,470 83	
Grand Trunk do.....	285,902 97	
Wellington do.....	48,532 99	
Atkinson's do.....	15,740 32	
Reynar's do.....	86,541 85	
Harbour improvements.....	51,103 20	
Pointe-à-Carcy, deepening.....	9,918 29	
Cash on hand.....	3,136,233 43	
do deposit.....	31,403 63	
Jackscrows account.....	21,769 47	
Tools do.....	394 87	
Anchor do.....	1,904 41	
Bills receivable.....	245 50	
Materials account.....	1,142 80	
Suspense account—	124 63	
Rents, wharf and storage.....		
Arrears, beach and deep water lots.....		
		\$ 1,776 56
		976 52
	2,753 08	
	4,090,566 97	
		4,090,566 97

JAS. WOODS,
Secretary-Treasurer.

We hereby certify that we have examined the books and vouchers of the Quebec Harbour Commission for the year ending 31st December, 1893, and that the above is a correct copy of the balance sheet.

A. GABOURY, }
A. AHERN, } *Auditors.*

QUEBEC HARBOUR COMMISSION.

COMPARATIVE Statement of the Revenue of the Commission for the years 1892 and 1893.

	1892.		1893.		Difference in 1893.	
	\$	cts.	\$	cts.	\$	cts.
Tonnage dues	14,922	71	12,768	18	*2,154	53
Import dues	2,451	71	2,736	17	‡284	46
Export dues	4,965	45	3,608	19	*1,357	26
Harbour dues	2,412	49	2,377	08		*35 41
Property receipts	44,662	26	43,080	87	*1,581	39
Interest	1,397	64	1,353	56		*44 08
Beach and deep water lots	1,977	37	1,953	04		*24 33
Sundries	8	90	22	00		‡13 10
	72,798	53	67,899	09		*4,899 44

*Decrease. ‡Increase.

Steamboat Inspection.

Cr.

REVENUE and Expenditure.

	1893.	1893.		\$	cts.
Dr.	Dec. 31..	Dec. 31..	By Officers' salaries	8,388	66
	To Tonnage dues		Reporters do	562	00
	Import dues		Legal expenditure	864	02
	Export dues		Auditors for 1892	200	00
	Harbour dues		Property expenditure	16,161	71
	Property receipts		Commissioners attendance	2,310	00
	Beach and deep water lots		Report and appendices	636	75
	Interest		Harbour Master's service	276	35
	Sundries		Gas accounts, 12 months	97	74
			Removing snow	75	00
			Stationery	189	32
			Hardware	141	25
			Carpets	74	24
			Sundries	1,154	21
			Surplus over the working expenses	36,767	84
				67,899	09

MEMO.—Included in this surplus of \$36,767.84 is the unsettled annual charge of \$13,845.48 against the Department of the Interior for the rent of the ground occupied by the Immigration Buildings.

JAS. WOODS,
Secretary-Treasurer.

QUEBEC, 18th January, 1893.

To the Chairman and Commissioners,
Quebec Harbour Commission.

GENTLEMEN,—We beg to report that we have audited the books and vouchers of the Commission for the year 1893, and we are pleased to state that we have found everything in order.

We have to thank the secretary for having given us all the facilities possible.

We have the honour to be, gentlemen,
Your obedient servants,

A. GABOURY, }
A. AHERN, } *Auditors.*

Steamboat Inspection.

APPENDIX No. 7.

REPORT OF THE HARBOUR COMMISSIONERS OF THREE RIVERS FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

SECRETARY'S OFFICE, THREE RIVERS, February 6th, 1894.

SIR,—By the direction of the Harbour Commissioners of Three Rivers, I have the honour to forward, for the information of the Honourable the Minister of Marine, statements of receipts and disbursements of the Commission for the year ended 31st December, 1893. A comparative statement of Trade and Navigation of the port during the year will follow in a few days.

I have the honour to be, sir,

Yours very respectfully,

GEORGE BALCER,

Secretary-Treasurer.

W.M. SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR 1893.

RECEIPTS.

From the Collector of Customs—			
Harbour dues on goods inwards.....	\$	672	80
do do outwards.....		2,714	04
Tonnage dues on vessels.....		1,392	84
Moorage dues.....		285	92
		5,065	60
Local Traffic—			
Harbour dues on goods inwards.....	\$	192	67
do do outwards.....		107	48
Tonnage dues on vessels.....		349	34
Commutation.....		937	85
Rent of wharf and moorage.....		241	65
		1,828	99
Total collection.....	\$	6,894	59

EXPENDITURE.

Salaries of officers and per cent for collector.....	\$	1,641	99
Rent, fuel, office expenses and supplies.....		583	78
Collection refunded.....		35	15
		2,260	92
Construction and properties account—			
Dean's wharf.....	\$	6,159	63
Engineers office and repairs.....		267	07
		6,426	70
Interest account—			
Dean's wharf.....	\$	1,612	33
Debentures.....		183	95
		1,796	28
Total expenditure.....	\$	10,483	90

Steamboat Inspection.

HARBOUR COMMISSIONERS OF THREE RIVERS.

SECRETARY'S OFFICE,

THREE RIVERS, 19th February, 1894.

W. SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.

SIR,—I beg to transmit to-day, according to my letter of the 6th instant, for the information of the Honourable the Minister of Marine, the balance of my report, consisting in a comparative statement of trade and navigation of the port and district of Three Rivers for the year ending 1893.

STATEMENT of Number and Tonnage of Sailing Vessels and Steamers entered Inwards and Outwards at the Port and Out-ports of Three Rivers for the year ending 1893.

Return of Vessels Inwards.			Return of Vessels Outwards.		
	No.	Tons.		No.	Tons.
Total arrivals.....	37	40,184	Total departures.....	37	40,184
Steamers	27	30,916	British	31	31,616
Sailing vessels.....	10	9,268	Norwegian	9	8,568
Sailing from.			Sailing for.		
Inland ports.....	22	26,108	Great Britain.....	29	32,408
Lower Provinces.....	6	5,508	Lower Provinces.....	6	5,508
Norway.....	9	8,568	Newfoundland.....	2	2,268
PORT OF THREE RIVERS.					
Steamers arrived.....	20	22,760	Steamers sailed.....	20	20,760
OUTPORTS—BATISCAN.					
Steamers arrived.....	3	3,529	Steamers sailed.....	3	3,529
Sailing vessels arrived.....	7	5,998	Sailing vessels sailed.....	7	5,998
LAKE ST. PETER—PIERREVILLE, LOUISEVILLE.					
Steamers arrived.....	4	4,627	Steamers sailed.....	4	4,627
Sailing vessels arrived.....	3	3,270	Sailing vessels arrived.....	3	3,270
LOCAL TRAFFIC.					
	Number.		Tonnage.		
Bateaux, not registered.....	148		.....	
Schooners.....	14		855		
Barges.....	28		3,136		
Steamboats and tugs.....	203		19,472		
American barges.....	893		23,463		
	878		36,905		

(Richelieu and Ontario Navigation Co.'s boats and local boats not included.)

RECAPITULATION.

<i>Sea-going Vessels.</i>	Vessels.	Tonnage.
Port of Three Rivers	20	22,760
Ontario ports—Batiscan	10	9,527
" Lake St. Pierre	7	7,897
American barges	37	40,184
Coasting traders	378	36,905
	398	23,463
Total	1,683	100,552
The aggregate volume of direct foreign trade for 1893, as per custom and consular returns for the port and outports of Three Rivers, amounted to \$989,691.		
Divided into :—		
Exports		818,693
Imports		170,998
As against a total of \$934,808 in 1892, and \$931,001 in 1891.		
The exports are divided as follows :—		
To the United States—		
20,275,000 ft. lumber	217,294	
5,439,000 shingles	11,462	
R. R. ties and telegraph poles	6,648	
Square timber	2,760	
Other lumber	1,868	
30,763 cords pulpwood	120,632	
14,925,000 lbs. wood pulp	97,231	
Hemlock bark	225	
3,490 tons hay	27,585	
6,397 sheep	18,246	
11 horses	1,190	
Products of the farm	2,706	
Furs	562	
Household effects	20,033	
Sundries	990	
		558,933
To Great Britain—		
28,800,000 ft. lumber	225,435	
943½ tons manufactured pulp	13,500	
1,130½ tons hay	11,300	
		250,235
To Newfoundland—		
100,000 bricks	3,500	
Lumbering supplies	4,240	
		7,740
To Germany—		
Furs		1,785
Total		818,693
The imports were :		
From the United States—		
Breadstuffs and provisions	4,724	
Anthracite coal	10,274	
Hardware and machinery	2,148	
Leather and leather goods	7,890	
Rawhides and furs	2,154	
Cane, rattan and broom corn	2,475	
Raw tobacco	659	
Drugs and chemicals	559	
Silk, woollen and cotton goods	2,420	
Manufactured	1,287	
Glove trimmings	1,500	
Brass and manufacture of brass	679	
Electroplates, gold and silver, etc.	1,644	
Fancy goods, etc	1,221	
Parcels, sundries	1,851	
Books and prints	617	
Settlers effects	49,065	
Miscellaneous	862	
		92,029

Steamboat Inspection.

	\$	\$
<i>The imports—Continued.</i>		
From the Maritime Provinces—		
10,358 tons coal		35,000
From Great Britain—		
Woollen and cotton goods	19,332	
Silk, laces, etc.	2,647	
Hosiery	609	
Hats	945	
Leather	3,680	
Miscellaneous	693	
		27,906
From France—		
Millstones, manufactured	1,596	
Bells and church ornaments	1,555	
Beads, etc.	404	
Books	1,516	
Furs	626	
Glove fittings	719	
Bronze and electroplate	133	
Fancy goods	217	
Brandy	915	
Wine	29	
		7,710
From Germany—		
Leather	3,597	
Wine	135	
		3,732
From Holland—		
Gin		2,658
From Austria—		
Leather	732	
Furs	566	
		1,298
From Belgium—		
Glass		362
From Spain—		
Wine		241
From Italy—		
Bead ornaments		62
Total		170,998

Summing up the figures the aggregate volume of direct trade in 1893, slightly exceeds the average of the past few years. Traffic, in general, remained the same.

But in going into details a material change in the direction of some of our exports is noticeable.

LUMBER.

Our principal staple—lumber, for instance, although maintaining the importance of former years, has varied a good deal. The expectation at the beginning of the year, as to the further development of the trade with the United States, has not been realized; the commercial crisis which took place last summer, has reduced the shipment of sawn lumber in that direction to exactly one-half, viz., 20 million feet as against over 40 million in 1892.

On the other hand shipments to Great Britain show a large increase—as to quantity at least—for as to value there has been a material decline in the price. Our 11½ million feet of pine and spruce deals in 1892 amounted to about \$125,000, an average of \$10; whereas the 28½ million of 1893 only attained \$225,000, or an average of about \$8. But the proportion of pine to spruce was larger in 1892 than last year.

No other shipments to foreign countries have been effected in 1893, although a fair proportion of the sawn lumber from our Three Rivers mills, as well as from the mills near the city, has been forwarded to Montreal and Quebec for transshipment to foreign markets. But the bulk of last year's production, however, remains over in most of our lumber yards.

PULPWOOD.

In spite of the general depression in the United States, the shipment of pulpwood increased fully 50 per cent, from 20,200 cords in 1892 to 30,700 in 1893.

PULP.

The export, in same direction, of wood pulp also increased some 20 per cent, not quite 15 million pounds against 11 millions in 1892.

For the first time in many years several thousand tons of pulp have been shipped to Great Britain. One cargo was shipped from Three Rivers and several others *via* Montreal. Larger shipments are contemplated for the coming season, for the English and French markets.

HAY.

The export of hay continue to show a lamentable decrease in direct shipments to the United States. Only 3,490 tons having been registered as against 3,378 tons in 1892, and as much as over 30,000 in former years. But shipments *via* Montreal, for both the United States and European markets reached over 20,000 tons, to which we may add the two cargoes directly sent to Great Britain from our port.

A fair proportion of our hay continues to supply the different home markets, but the bulk of our production is now consumed on the farms, on account of the large increase in the number of cattle held by the farmers for dairy purposes.

CHEESE.

Cheese manufactories are now established in nearly every parish of the country, north as well as south of Three Rivers, and turn out yearly an enormous quantity of a really superior article. But no direct shipments are yet made from our port, and thousands of pounds are daily shipped during the season to Montreal for transshipment to European markets, and the output is still on the increase. The question has been lately discussed between the Canadian Pacific Railway Company, the Harbour Commissioners and the Board of Trade, and measures arranged by which necessary improvements and special conveyances will be introduced so as to concentrate at our port the greater portion of the many million of pounds of this dairy product.

With our lumber, pulp and hay it will then be far easier and surely far less expensive to ship them directly from here to the English or any other market.

LOCAL INDUSTRIES.

Our local industries, for home consumption as well as for exports, continued, with few exceptions, to do fairly well during the year 1893.

In lumbering the output of the St. Maurice alone amounted to some 700,000 logs for the season and the production of our mills, in and around Three Rivers, to some 120 million feet.

The Laurentide Pulp Company produced nearly 50,000 tons of pulp.

The Radnor Forges made and received some 19,000 tons of ore; produced nearly 700,000 bushels of charcoal, and turned out some 7,500 tons of charcoal pig iron; and beside several million bricks, including some 100,000 repressed bricks of superior quality and finish.

Our glove manufactory continued to supply the interprovincial market with a well appreciated article. The same may be said of our metal works; and the other manufactures, on the average, reported satisfactory results. The whole respectfully submitted.

GEORGE BALCER,
Secretary, Three Rivers Harbour Commission.

Steamboat Inspection.

APPENDIX No. 8.

REPORT OF THE HARBOUR COMMISSIONERS OF NORTH SYDNEY FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

NORTH SYDNEY, 24th January, 1894.

To the Hon. Sir CHARLES HIBBERT TUPPER, M.P.,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to inclose you the Harbour Commissioners' report for 1893, and also the Harbour Master's statistics of the port, which I trust you will find in order.

I have the honour to be, sir,
Your obedient servaut,

GEO. H. DOBSON,
Secretary.

To the Hon. Sir CHARLES HIBBERT TUPPER, M.P.,
Minister of Marine and Fisheries,
Ottawa.

SIR,— In pursuance with the provision of section 4 of the 42nd Victoria, chapter 30, we have the honour to submit our report for the year 1893.

There has been nothing of importance transpired in connection with the harbour since we last reported to you. The wharf work built last year on the North Bar has stood the heavy fall gales, and the commissioners propose filling the unfilled chambers with stone while the ice is on the harbour during the winter.

The commissioners decided a year ago to have a man secure all the stone ballast obtainable, and fill up from the outer wharf work to the shoal water on the North Bar, and as a result some 2,763 tons of stone was deposited there during the past season at a cost of \$92.39. It is hoped that by securing stone ballast for another season or so the desired work will be accomplished, when the North Bar extension will be thoroughly made solid and permanent.

The commissioners are paying Mr. Lithgow \$600, on account of the mortgage held by him on the harbour works, out of the balance reported on hand.

The Harbour Master's report annexed contains the usual particulars furnished the department of the shipping arrivals, coal export, etc.

These totals made a most satisfactory showing, the coal shipment being increased from 138,608 tons in 1879 to 657,000 tons in 1893, an increase of 500 per cent.

And the shipping and tonnage as follows: 1,153 vessels 245,220 tons in 1879 to 1,629 vessels 524,200 tons in 1893, an increase in shipping tonnage of over 100 per cent.

On the next page will be found an account of the receipts and disbursements.

There was an increase in the receipts from shipping for the year of \$242.66. Of the 524,200 tons of arrivals reported, only 201,171 tons paid dues.

The report and disbursements for the year were as follows:—

1893.	Dr.	\$ cts.	1893.	Cr.	\$ cts.
Jan. 14.	To Balance on hand	1,012 52	Jan. 14.	By A. C. Bertram	10 00
Dec. 31.	“ Received from shipping through the Collector of Customs	2,011 71		“ G. B. Moffat, Harbour Master	400 00
				“ G. B. Moffat, for boat service	50 00
				“ V. Brown, collecting dues	25 00
				“ M. J. Phoran, Chairman	150 00
				“ Chas. Cann, getting 2,763 tons ballast	92 39
				“ G. H. Dobson, Secretary	250 00
				“ Partridge Bros	1 00
				“ J. R. Lithgow	210 50
				“ Postage	0 20
				“ W. H. Moore, Treasurer, five per cent on \$2,011.74	100 55
				“ Balance on hand	1,734 58
					3,024 23
		3,024 23			
Dec. 31.	To Balance brought down	\$1,734 58			
					3,024 23

We remain, your obedient servants,

M. J. PHORAN,
W. H. MOORE,
GEO. W. DOHM.

Steamboat Inspection.

HARBOUR MASTER'S REPORT FOR 1893.

GENTLEMEN,—I hereby submit a comparative statement of arrivals, tonnage, calling for orders and steamers for bunker coal; also the coal shipment from the harbour since 1868, and the opening and closing of navigation.

Class.	1886.		1887.		1888.		1889.		1890.		1891.		1892.		1893.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Ocean steamers.....	289	241,849	292	280,945	335	259,493	423	373,903	391	339,164	386	352,649	310	247,245	543	370,892
Coasting do	77	160,044	82	19,810	160	26,191	86	19,480	90	21,774	82	163,165	56	12,768	49	11,153
Ships	5	7,151	6	77,528	66	8,238	55	6,364	10	16,578	6	7,906	11	14,300	7	10,276
Barks.....	150	73,219	110	49,056	78	32,010	81	36,921	126	69,407	67	47,101	70	42,544	74	42,868
Brigantines	86	19,368	102	18,323	109	18,301	100	18,240	80	17,250	81	17,090	38	8,180	553	11,040
Schooners.....	861	62,988	672	52,868	591	51,272	749	56,895	1118	76,457	899	73,334	779	71,510	903	76,972
Total	1468	420,691	1264	428,528	1279	395,505	1444	510,803	1815	540,630	1534	515,215	1267	394,627	1629	524,201
No. of seamen.....	14,803		113,313		115,776		18,846		17,557		16,000		13,389		13,765	

COAL EXPORT.

THE following is a statement of the Coal Shipment from the Harbour including all the mines in the Harbour.

Year.	Sydney.	Victoria.	Inter-national.	Bridgeport.	Gardiner.	Reserve.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1878.	106,366	10,547	14,348			77,347	138,603
1879.	108,259		21,523			17,269	147,051
1880.	115,317		38,897			13,614	167,828
1881.	133,135		76,285			68,884	278,204
1882.	133,622		102,927			74,432	310,981
1883.	131,673	1,521	96,997			104,777	334,968
1884.	131,339	10,408	80,798	3,045		86,550	312,140
1885.	103,917	39,926	87,485	12,583		72,547	316,458
1886.	119,949	46,744	106,149	12,519		83,402	368,823
1887.	145,210	55,651	102,485	18,014		76,205	397,565
1888.	126,896	72,503	99,544	22,327		100,063	430,333
1889.	123,902	91,120	118,086	24,222		110,225	467,555
1890.	150,468	77,367	133,076			139,777	500,688
1891.	146,645	96,479	124,677	32,547	17,105	154,656	572,109
1892.	164,078	108,332	105,479	31,328	39,485	135,836	584,538
1893.	200,000	100,000		185,000		172,000	657,000

PORT OF NORTH SYDNEY.

COMPARATIVE STATEMENT showing the dates of the closing and opening of navigation ; also the first arrival from, and last departure to sea for the past thirteen years.

Year.	Closing of Navigation.	Opening of Navigation.	Last Departure.	First Arrival.
1881.	January 22..	February 25..	January 19..	April 1
1882.	do 27..	May 2..	do 24..	May 2
1883.	do 19..	March 23..	do 17..	April 1
1884.	do 16..	April 22..	do 16..	do 27
1885.	do 22..	do 24..	February 15..	do 25
1886.	February 28..	do 4..	do 15..	do 15
1887.	do 21..	do 2..	January 27..	do 28
1888.	January 19..	March 25..	do 16..	do 7
1889.	February 23..	do 6..	do 27..	March 30
1890.	do 23..	do 6..	do 27..	do 30
1891.	January 27..	do 14..	do 17..	do 15
*1892.				
1893.	February 16..	March 19..	February 16..	March 19

* Open all winter ; vessels arrived each month.

Respectfully submitted,

GEO. B. MOFFAT,
Harbour Master.

Steamboat Inspection.

APPENDIX No. 9.

REPORT OF THE HARBOUR COMMISSIONERS OF PICTOU FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

Pictou, 15th January, 1894.

SIR,—I inclose herewith the accounts of receipts and expenditures of the Harbour Commissioners, port of Pictou, for year ending 30th December, 1893.

Yours truly,

D. SUTHERLAND.

HARBOUR Commissioners' Report, Port of Pictou, Nova Scotia.

1893.	DR.	\$ cts.	1892.	CR.	\$ cts.
Feb. 11	To interest on note.....	12 00	Dec. 31	By balance	20 70
Mar. 7	" J. Hill, bushing E. River.....	6 00			
April 24	" M. McReon do	1 75	1893.		
May 2	" J. McRae, bushing M. River..	8 00			
.....	" R. McGilvray, painting buoys.	4 50	Dec. 30	" amount received for harbour	
May 9	" John Dunbar	4 00		dues for 1893.....	473 67
June 3	" John Hill, bushing E. River ..	15 00	.....	" balance due secretary.....	132 03
do 14	" Interest on note	12 00			
do 26	" SS. " Daisy"	22 50			
July 29	" R. McKay, bushing W. River..	8 00			
.....	" B. Flynn.....	2 00			
Oct. 17	" Interest on note	12 00			
Dec. 23	" James McDonald	4 00			
do 26	" SS. " Dai-y," lifting buoys....	32 00			
.....	" Harry Schultz.....	1 20			
Dec. 30	" Amount D. Sutherland's acc't.	481 45			
		626 40			626 40

D. SUTHERLAND,
Secretary, Harbour Commissioners.

ALLAN A. FERGUSON,
Chairman.

Sworn before me 8th January, 1894.

WILLIAM ROSS, *J. P.*

MEMORANDUM of Receipts and Disbursements of Harbour Dues at the Port of Pictou,
N.S., during the Year ending December 31st, 1893.

1893.	RECEIPTS.	\$	cts.	1893.	DISBURSEMENTS.	\$	cts.
Jan. 1	To Balance on hand from 1892..	124	40	Sept. 26	By Nova Scotia Printing Co., 5 blank receipt books	7	50
Dec. 31	Harbour dues collected dur- ing 1893.....	889	17		Expressage on do	0	40
				Dec. 31	Paid Harbour Master's salary for 1893.....	400	00
				do 31	Paid Harbour Commissioners during 1893.....	473	67
				do 31	Amount in bank of Nova Scotia, reserved to pay Harbour Master's salary during winter of 1894	132	00
			1,013				57
				do 31	Balance in hand...	132	00

D. McDONALD,
Collector.

Pictou, 31st December, 1893.

SIR,—I have the honour to report that the following vessels have entered the
Harbour of Pictou during the year, to date:—

British.		
201	Paddle steamers.....	135,285
139	Screw do	41,335
7	Barks	6,271
2	Barkentines	980
1	Brigantine	286
1,172	Schooners.....	54,396
<hr/>		
1,522		238,553
30	Foreign sailing vessels	6,738
17	do steamers.....	14,943
<hr/>		
		21,681
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1,552		260,234
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To DANIEL SUTHERLAND, Esq.,
Secretary of Board of Harbour Commissioners,
Port of Pictou.

JOHN GUNN,
Harbour Master.

Steamboat Inspection.

APPENDIX No. 10.

TABLE showing the names of Ports proclaimed under certain Dominion Acts, the provisions of which are found in Chapter 86, Revised Statutes of Canada, for the appointment of Harbour Masters; the dates of proclamation; the names of the Harbour Masters appointed; the dates of the appointment; the salaries of the Harbour Masters; the amount which each of their salaries is not to exceed; the amount of fees collected by each of them during the calendar year ended 31st December, 1893, and the overplus, if any, paid into the credit of the Receiver General.

PROVINCE OF ONTARIO.

Name of Port.	Date of Proclamation.	Name of Harbour Master.	Date of Appointment.	Amount from the	Amount collected in	Amount paid over to
				fees of office salary not to exceed.	1893.	Receiver General.
				\$ cts.	\$ cts.	\$ cts.
Collingwood	3 March, '77	Andrew Lockertie	3 March, '77	200 00	79 00	
Fort William	7 July, '91	D. F. Macdonell	3 March, '93	400 00	420 00	20 00
French River	20 June, '93	E. Brown, jun	20 June, '93	200 00	70 00	
Goderich	28 April, '76	Thomas N. Dancey	22 April, '76	300 00	83 00	
Midland	22 July, '82	E. Polkinghorn	22 July, '82	200 00		
Parry Sound	24 March, '83	John Galna	19 March, '83	200 00	155 00	
Penetanguishene	2 Feb., '77	Francis Dunsome	3 June, '81	200 00	19 50	
Port Arthur	12 May, '84	D. F. Macdonell	3 March, '93	200 00	202 50	2 50
Rondeau	4 May, '78	W. R. Fellowes	17 Dec. '88	100 00	38 50	
Southampton	23 Sept., '75	W. H. Johnston	— Oct., '82	160 00	29 50	
Sarnia	25 July, '85	Robert McAdam	3 May, '86	300 00		

PROVINCE OF QUEBEC.

Amherst	14 Sept., '78	John Cassidy	2 Sept., '78	200 00	12 00	
Bersimis	31 July, '91	Earl D. Chase	31 July, '91	200 00		
Carleton	8 Dec., '81	Joseph Cauchon	28 Nov., '92	200 00		
Chicoutimi	17 June, '85	Ainsworth Sturton	8 June, '86	200 00	107 50	
Grand Entry	— Feb., '92	Colin Wallace	19 Feb., '92	200 00		
Gaspé	25 Sept., '74	Francis J. Eden	3 April, '89	500 00		
House Harbour	9 Aug., '87	Peter Bourque	9 Aug., '87	200 00	15 00	
Lachine	19 April, '80	Vacant				
Matane	19 Oct., '77	G. C. Pelletier	11 Aug., '88	200 00		
Métis	7 Feb., '78	P. F. Leggatt	7 Feb., '78	200 00	65 00	
New Carlisle	25 Feb., '89	Digby Smollett	25 Feb., '89	200 00	6 00	
New Richmond	15 April, '82	Henry Leblanc	3 April, '82	200 00	17 00	
Oak Bay	27 March, '80	Jas. D. Sowerby	22 March, '80	200 00		
Paspébiac	12 May, '77	Hugh Christie	22 May, '77	150 00	30 50	
Port Daniel	25 March, '89	J. Enright	11 Sept., '90	200 00	3 50	
Rimouski	5 March, '77	Jos. St. Laurent	30 May, '78	200 00	9 50	
Rivière Ouelle	22 July, '82	Vacant		100 00		
St. Thomas	2 Jan., '86	Eug. Hammond	21 Dec., '85	200 00	131 50	
St. Johns	Within the Harbour of Montreal.	Alfred Pinsonneault	8 March, '88	500 00	547 00	47 00
Sorel		Pierre Bellefeuille	20 April, '75	300 00	290 00	

TABLE showing the names of Ports proclaimed under the Dominion Acts, &c.—Continued.

PROVINCE OF NEW BRUNSWICK.

Name of Port.	Date of Proclamation.	Name of Harbour Master.	Date of Appointment.	Amount from the fees of office salary not to exceed.		Amount collected in 1893.		Amount paid over to Receiver General.	
				\$	cts.	\$	cts.	\$	cts.
Bathurst.....	30 May, '73	James Andrew.....	23 March, '81	200	00	78	00		
Black's Harbour and Beaver Harbour.....	22 Sept., '83	E. W. Cross.....	17 Sept., '83	100	00	18	00		
Buctouche.....	30 May, '73	Melem Chase.....	30 July, '90	100	00	6	00		
Campbellton.....	30 May, '73	A. J. Venner.....	12 April, '93	200	00	38	00		
Campobello.....	30 May, '73	W. E. Sulis.....	16 Dec., '92	100	00	6	50		
Caraget.....	30 May, '73	Louis Poirier.....	17 April, '83	150	00	11	00		
Chatham.....	30 May, '73	Wm. Johnston.....	25 June, '79	300	00	314	00	14	00
Cocagne.....	30 May, '73	John Brooks.....	7 July, '73	100	00				
Dalhousie.....	30 May, '73	Wm. Smith.....	19 March, '88	200	00	102	00		
Dorchester.....	30 May, '73	F. C. Palmer.....	15 April, '93	200	00	26	50		
Fredericton.....	30 May, '73	Vacant.....							
Grand Manan, North.....	18 Sept., '76	James A. Pettis.....	21 May, '88	100	00				
Grand Manan, South.....	22 Aug., '89	Abel Wilcox.....	22 Aug., '89	100	00	5	50		
Great Shemogue.....	17 May, '75	Fred. Chapman.....	21 May, '88	100	00				
Harvey.....	30 May, '73	H. E. Graves.....	8 July, '84	100	00	45	00		
Hillsborough.....	30 May, '73	W. H. Carlisle.....	20 May, '90	150	00	96	00		
Hopewell Cape.....	25 Aug., '91	Josiah Christopher.....	25 Aug., '91	200	00	30	50		
Ledge of St. Stephens.....	30 May, '73	Charles Young.....	22 April, '76	100	00				
Letete, &c.....	22 Sept., '83	Jos. Chambers.....	17 Sept., '83	100	00	5	50		
Little Shippegan and Miscou Gully.....	1 May, '86	Donald Harper.....	19 April, '86	100	00				
Little Shemogue.....	5 Sept., '88	Fred. Chapman.....	5 Sept., '88	100	00				
Moncton.....	30 May, '73	Vacant.....							
Musquash.....	26 March, '74	George Rose.....	16 May, '87	100	00				
Newcastle.....	30 May, '73	John Niven.....	7 July, '73	300	00	175	50		
North Joggins.....	30 May, '73	Vacant.....							
Port Elgin & Baie Verte.....	6 Feb., '73	R. Anderson.....	2 June, '93	200	00	63	50		
Pokemouche.....	7 July, '83	Vital Louise.....	23 June, '83	100	00				
Richibucto.....	30 May, '73	James Alexander Jardine.....	11 May, '74	200	00	93	50		
Rockland.....	30 May, '73	Vacant.....							
Sackville.....	30 May, '73	Alexander Ford.....	28 June, '88	200	00	17	00		
St. Andrew's.....	30 May, '73	John Wren.....	6 May, '84	100	00	88	00		
St. George.....	30 May, '73	Alexander Dick.....	29 Aug., '84	100	00	9	50		
St. Martin's and Quaco.....	14 May, '74	Joseph Carson.....	14 May, '74	100	00	7	00		
Shediac.....	30 May, '73	Alexander McQueen.....	19 May, '76	300	00	98	50		
Shippegan.....	30 May, '73	John DeGrace.....	10 Aug., '80	100	00	8	50		
Tracadie.....	7 May, '74	Vital Arceno.....	9 July, '75	100	00	2	50		
Waterside.....		Wm. Riley Copp.....	3 Sept., '89	100	00	14	50		
West Isles.....	4 Feb., '79	Thos. K. Parker.....	4 Feb., '79	200	00				

PROVINCE OF NOVA SCOTIA.

Advocate.....	15 May, '80	Samuel Morris.....	10 May, '80	100	00	15	00		
Annapolis.....	12 March, '75	William Cummings.....	16 May, '79	200	00				
Apple River.....	14 Aug., '86	Robt. Fields.....	9 Sept., '90	200	00	16	50		
Arschat.....	22 April, '79	Francis Marmeau.....	6 May, '84	200	00	51	00		
Baddeck.....	23 Sept., '75	Alex. McAulay.....	10 Dec., '90	100	00	6	00		
Barrington.....	10 July, '83	B. Kenney.....	6 July, '93	200	00	5	00		
Bayfield.....	11 July, '79	John McDonald.....	11 July, '79	200	00	4	00		
Bay St. Lawrence.....	21 April, '87	G. Zwicker.....	21 April, '87	200	00				
Bear River.....	25 Sept., '74	Robert Austin.....	4 April, '87	100	00	42	50		
Beaver Harbour.....	24 July, '80	Henry Hawboldt.....	22 Sept., '88	100	00				
Big Harbour.....	9 June, '83	Donald McKenzie.....	28 May, '83	100	00	15	50		
Bourgeois River.....	1 May, '86	E. O. Bouchie.....	19 April, '86	100	00	6	00		
Bridgewater.....	6 May, '74	Joseph Robins Wyman.....	6 May, '74	100	00	55	50		
Bras d'Or, including New Campbelltown.....	6 May, '74	A. Livingston.....	25 Aug., '91	200	00	6	00		
Cape Canso.....	6 June, '76	William Walsh.....	6 June, '76	100	00	79	50		

Steamboat Inspection.

TABLE showing the names of Ports proclaimed under the Dominion Acts, &c.—Continued.

PROVINCE OF NOVA SCOTIA—Continued.

Name of Port.	Date of Proclamation.	Name of Harbour Master.	Date of Appointment.	Amount from the fees of office salary not to exceed.		Amount collected in 1893.	Amount paid over to Receiver-General.
				\$	cts.	\$	cts.
Cape Negro or North East Harbour	18 May, '81	A. D. Perry	18 May, '81	200	00	25	50
Chester	8 Sept., '83	Arch. Evans	4 Aug. '83	100	00	29	50
Cheticamp	20 April, '76	Fulgence Ancoin	15 April, '76	100	00		
Clarke's Harbour	1 June, '81	J. B. Brennan	1 June, '81	200	00	21	00
Clementsport	1 May, '77	Thomas Tracey	1 May, '77	100	00	8	00
County Line to Grand Narrows	9 June, '83	Vacant					
Cow Bay	3 March, '79	Hector McDonald	3 March, '79	400	00	117	00
Crow Harbour	30 Sept., '88	John Ehler	5 May, '90	100	00		
D'Escousse	23 Jan., '85	Arthur Pertus	6 March, '90	100	00	56	50
Digby	19 Feb., '78	J. W. Cousins	3 March, '93	300	00	32	50
East Bay	25 Aug., '83	Donald McInnes	5 April, '86	100	00		
Fourchier	22 May, '89	Neil McLean	22 May, '89	100	00	0	50
Gaberouse	3 March, '79	John Wm. Hardy	2 Nov., '86	100	00	4	00
Glasgow and Cape Breton Pier	30 Oct., '80	Angus McQuarrie	30 Oct., '80	300	00		
Guyaboro'	15 Jan. '89	Thos. O'Connor	31 Oct., '93	100	00		
Halifax	No proclamation required by Act						
Hantsport	27 June, '84	J. E. Butler	21 Sept., '93	1,800	00	1,420	00
Indian Bay	25 Oct., '76	Edward Davison	25 Oct., '76	150	00	16	00
Ingonish, North Bay of	22 March, '81	Matthew Drips McKenzie	27 June '84	225	00	117	50
Ingonish, South Bay of	9 Oct., '84	William Thomson	24 March, '81	200	00		
International Pier, Sydney	9 June, '86	P. C. Brewer	9 June, '86	100	00	5	00
Isaac's Harbour	30 Oct., '80	Michael Neville	30 Oct., '80	300	00	262	50
Jeddore	30 Oct., '89	Andrew J. Blakely	30 Oct., '89	100	00	15	50
LaHave or Getson's Cove	20 Sept., '90	Wm. Jennox	20 Sept., '90	100	00	6	00
L'Ardoise, Upper and Lower	12 March, '75	George Henry Zwicker	25 Feb., '75	300	00	26	75
Lingan	22 Aug., '84	George Burke	29 Aug., '84	100	00	1	50
Liscombe	12 July, '81	Thomas Laffin	12 July, '81	200	00		
Little Bras d'Or Lake between McKay's Point and Grand Narrows	18 May, '81	David Rosenheiser	9 Aug., '88	200	00	20	00
Little Bras d'Or Lake from McKay's Point to Washadabuck Rivers	25 April, '84	Peter McLean	25 April, '84	100	00		
Little Glace Bay	25 April, '84	Alex. J. McNeil	25 April, '84	100	00		
Little Narrows and Cranberry Point	3 Aug., '74	E. Douglas Rigby	8 May, '84	200	00	171	00
Liverpool	9 June, '83	Norman Matheson	23 May, '83	100	00	3	50
Lockeport	19 Jan., '77	Wm. A. Kenny	19 Jan., '77	200	00	147	00
Louisburg	18 May, '81	E. A. Capstick	18 May, '81	200	00		
Lunenburg	17 March, '79	Louis Dickson	5 Oct., '87	200	00	55	50
Mabou	3 Dec., '75	William Henry Begg	3 Dec., '75	150	00	114	50
Mahone Bay	17 July, '80	Finlay Rankin	23 June, '80	100	00	7	00
McNair's Cove	16 May, '87	W. A. Pickles	16 May, '87	200	00	12	50
Main à Dieu	12 March, '75	Ronald McEachen	8 March, '75	150	00		
Maitland	31 July, '86	John Farrell	21 July, '86	100	00	6	00
Marble Mountain	26 May, '85	Vacant					
Margaretsville	26 July, '92	D. McDonald	26 March, '78	200	00	0	50
Margaret's Bay	26 March, '78	Robert Earley	26 July, '92	100	00		
Margaree	16 July, '75	Francis Peter Boutellier	6 July, '75	100	00	28	00
Merigomish	12 June, '86	Nicholas Deagle	27 Feb., '93	100	00		
Meteghan River	26 March, '78	D. McGregor	22 March, '93	100	00		
McNeil's Harbour	10 Feb., '83	Urbain Doucette	31 Jan., '83	100	00	15	50
	9 June, '83	A. Hayman	28 May, '83	100	00		

TABLE showing the names of Ports proclaimed under the Dominion Acts, &c.—*Con.*PROVINCE OF NOVA SCOTIA—*Concluded.*

Name of Port.	Date of Proclamation.	Name of Harbour Master.	Date of Appointment.	Amount from the fees of office salary not to exceed.	Amount collected in 1888.	Amount paid over to Receiver General.
				\$	\$	\$
Musquodoboit	19 May, '82	David Williams	19 May, '82	100 00	.....	.....
New Haven	9 June, '83	H. A. McLeod	17 Aug., '89	100 00	.....	.....
Northport	27 June, '82	John Burns	27 June, '82	100 00	44 00	.....
North-west Cove, Coleman's Cove and Aspotogan Harbour	22 Dec., '76	P. Boutillier	30 June, '92	.....	.....	.....
Parrsborough	22 Oct., '73	Edward Walter Beaty	22 Oct., '73	300 00	303 50	.....
Petite Rivière Bridge	7 July, '83	John Nelson Parks	27 April, '88	100 00	.....	.....
Plaster Harbour	6 May, '74	Vacant .....	.....	.....	.....	.....
Port George	1 May, '77	Charles B. Weaver	1 May, '77	150 00	.....	.....
Port Greville	13 March '80	George Hatfield	8 April, '91	200 00	25 50	.....
Port Hawkesbury	16 July, '75	Daniel Henesey	9 July, '75	200 00	102 50	.....
Port Hood	16 July, '75	John Murphy, jun	9 July, '75	200 00	4 00	.....
Port la Tour	14 April, '81	John Nickerson	9 Feb., '92	200 00	7 00	.....
Port Lorne	27 March, '86	Samuel Beardsley	13 March, '86	200 00	3 50	.....
Port Mulgrave	8 March, '76	David Murray	12 Oct., '92	200 00	35 50	.....
Port Medway	25 June, '79	John W. Hut	19 April, '84	200 00	.....	.....
Pubnico	27 Sept., '82	D. Q. Amireau	27 Sept., '82	100 00	46 50	.....
Pugwash	22 Oct., '93	A. A. Stevens	22 Oct., '73	100 00	46 00	.....
Ritcey's Cove	26 Sept., '84	Joseph Ritcey	29 Sept., '84	100 00	41 00	.....
River John	26 March, '78	H. Campbell	11 June, '91	100 00	2 00	.....
St. Ann's, including Fuchs Cove	20 April, '81	Peter McLean	20 April, '81	200 00	.....	.....
St. Mary's River	18 May, '81	William Pride, sen	20 Dec., '93	200 00	19 50	.....
St. Peter's	24 Jan., '81	Peter McNeill	17 Sept., '83	200 00	70 50	.....
Sambro	27 Dec., '79	Ben Smith, sen	23 Dec., '79	200 00	21 00	.....
Sheet Harbour	14 May, '74	Malcolm McFarlane	6 Dec., '83	150 00	19 50	.....
Shelburne	27 Aug., '77	John A. McGowan, jun	22 Jan., '80	200 00	144 00	.....
Sydney .....	.....	A. McQuarrie .....	.....	.....	288 50	.....
Ship Harbour	2 June, '84	Conrad Marks	2 June, '84	100 00	11 50	.....
Smith's Mountain	9 June, '83	James McKillop	28 May, '73	100 00	8 50	.....
Tatamagouche	27 Feb., '78	W. McKenzie	29 March, '93	200 00	.....	.....
Tidnish	5 July, '82	Charles Fields	30 June, '84	100 00	39 00	.....
Torbay and Whitehead	18 May, '81	O. N. Feltmate	18 May, '81	200 00	28 00	.....
Tusket	18 March, '75	Charles W. Hatfield	7 March, '87	100 00	.....	.....
Victoria Pier, South Bar, Sydney	25 July, '84	York H. Barrington	25 July, '84	200 00	158 00	.....
Wallace	22 Oct., '73	Charles E. Kerr	28 July, '85	100 00	8 50	.....
West Arichat	20 Aug., '90	Simon Terrio	20 Aug., '90	100 00	26 50	.....
West Bay	8 May, '84	John McInnes	8 May, '84	100 00	3 00	.....
West Port	8 March, '87	Joseph D. Payson	8 March, '87	200 00	27 50	.....
Whycocomagh	29 Oct., '75	Neil McKinnon	8 Oct., '75	100 00	5 50	.....
Wood's Harbour	19 Feb., '92	S. K. Woods	19 July, '92	200 00	19 50	.....
Yarmouth	18 March, '75	Ebenezer Scott	19 Oct., '77	250 00	238 50	.....

PROVINCE OF PRINCE EDWARD ISLAND.

Alberton and Cascumpec	15 July, '74	W. D. White	12 Sep., '92	200 00	13 00	.....
Bay Fortune	10 April, '75	John R. Coffin	29 April, '78	200 00	.....	.....
Brudenell	25 July, '85	Vacant .....	.....	200 00	.....	.....
Cape Traverse	23 May, '84	Vacant .....	.....	.....	.....	.....
Cardigan River, including Cardigan Bridge	2 July, '78	Hercules McDonald	2 July, '78	200 00	.....	.....
Cardigan River, from head of river to north bank Mitchell River	2 July, '78	Allan Campbell	14 June, '83	100 00	.....	.....
Cove Head	15 May, '89	James D. McMillan	15 May, '80	100 00	.....	.....
Charlottetown	15 July, '74	David Small	17 June, '74	400 00	199 00	.....
Crapaud	15 July, '74	Wesley Myers	17 June, '74	200 00	3 00	.....

Steamboat Inspection.

TABLE showing the names of Ports proclaimed under the Dominion Acts, &c.—*Con.*

PROVINCE OF PRINCE EDWARD ISLAND—*Concluded.*

Name of Port.	Date of Proclamation.	Name of Harbour Master.	Date of Appointment.	Amount from the fees of office salary not to exceed.	Amount collected in 1893.	Amount paid over to Receiver General.
				\$ cts.	\$ cts.	\$ cts.
Egmont.....	15 July, '74	George Bollum.....	3 Nov., '85	200 00		
Georgetown.....	15 July, '74	Samuel Hemphill.....	1 Dec., '87	200 00	53 00	
Grand River.....	10 April, '75	Ronald S. McDonald.....	10 April, '75	200 00		
Grand River, down to and including Poplar Point and Chapel Wharf.....	10 April, '75	Vacant.....				
Malpeque.....	10 July, '74	Alex. Thompson.....	5 April, '87	200 00	2 50	
Minnegash.....	17 April, '80	Michael McElroy.....	12 April, '80	100 00		
Montague Bridge.....	15 July, '74	J. M. Aitken.....	28 May, '92	200 00	19 50	
Murray Harbour.....	17 June, '74	Wm. Millar.....	17 June, '74	200 00		
Murray River.....	15 July, '74	Hugh McKay.....	8 May, '84	200 00	3 50	
New London.....	15 July, '74	George Mackenzie.....	17 June, '74	200 00		
Pinette.....	15 July, '74	Vacant.....				
Port Hill.....	15 July, '74	James Ellis.....	17 June, '74	200 00		
Pownal.....	10 July, '79	A. A. Moore.....	10 July, '79	100 00		
Rollo Bay.....	10 April, '75	Vacant.....				
Rustico.....	17 May, '75	Geo. W. McKay.....	12 April, '81	200 00		
St. Peter's Bay.....	10 April, '75	John McGrath.....	28 June, '87	200 00		
Souris, East and West.....	10 April, '75	John McCormick.....	25 April, '79	200 00	29 00	
Summerside.....	15 July, '74	James Grady.....	7 Nov., '87	200 00	34 50	
Tignish.....	22 April, '90	Vacant.....				
Tracadie.....	17 May, '75	Donald Campbell.....	31 Jan., '81	200 00		
Tryon.....	12 April, '77	Vacant.....				
Vernon River Bridge.....	19 May, '74	John Finlay.....	9 Oct., '84	200 00		
West River.....	17 May, '75	Vacant.....				

PROVINCE OF BRITISH COLUMBIA.

Nanaimo.....	10 April, '75	E. Quennell.....	24 Oct., '84	500 00	515 00	15 00
New Westminster.....	23 Jan., '80	J. N. Draper.....	18 Aug., '86	400 00	39 50	
Quadra.....	17 April, '77	Vacant.....				
Vancouver, including Burrard Inlet.....	22 Feb., '88	M. W. Thane.....	22 Feb., '81	400 00	460 50	60 50
Victoria and Esquimalt.....	20 March, '75	W. R. Clarke.....	23 March, '81	600 00	500 50	

WM. SMITH,
Deputy Minister of Marine and Fisheries.

APPENDIX No. II.

REPORT OF THE PILOTAGE AUTHORITY OF MONTREAL FOR THE
YEAR ENDING 31st DECEMBER, 1893.

MONTREAL, 22nd January, 1894.

WILLIAM SMITH, Esquire,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour, by direction of the Harbour Commissioners of Montreal, as the Pilotage Authority, to transmit, for the information of the Honourable the Minister of Marine and Fisheries, the following report of the Pilotage District of Montreal for the year ended 31st December, 1893.

The accompanying statement gives the names, earnings, etc., of all the pilots for the past season, and shows an increase of over 10 per cent in earnings as compared with 1892.

The total amount of pilotage dues, as therein shown, was received from the following services, namely :—

BRITISH.	
Steamships.....	\$62,768 74
Sailing vessels.....	1,048 28
	<hr/> \$63,817 02
FOREIGN.	
Steamships.....	\$5,081 79
Sailing vessels.....	409 05
	<hr/> 5,307 84
Total.....	<hr/> <hr/> \$69,307 86

The vacancy in the list of fifty pilots, caused by the superannuation at his own request of Mr. Pierre Gagnon of Three Rivers, on 1st February, was filled by the licensing as pilot of Mr. J. B. Nadeau, of Lévis, on 11th April.

On 11th July Pilot Trefflé Toupin made application to be temporarily placed on the pension list, in view of his eyesight having become impaired, as was established by a medical certificate.

After consideration of the circumstances his request was granted and his license withdrawn until such time as it should be established that his eyesight was fully restored.

On 20th September Pilot Joseph Octave Hamelin was run over by a Montreal street car and died, from the injuries received, on 23rd.

The vacancies thus caused were filled by granting a license to apprentice Pilots Aubert Naud and Josephat Sauvageau, on the condition that, should Mr. Trefflé Toupin be reinstated before another vacancy had occurred, each of these gentlemen would cease to act as pilot until another vacancy occurred.

An examination of apprentice pilots was held in March, lasting six days, at which ten apprentices presented themselves, of whom the following seven passed successfully, namely :—

Josephat Sauvageau, Napoléon Dussault, Barthélemi Arcand, Prudent Bellisle, George Arcand, Constant Toupin, and George Perrault.

Steamboat Inspection.

These were accordingly placed at the head of the list of apprentices and, having during the past season made the required trips between Montreal and Quebec with the licensed pilots, are now entitled to a pilot's license, as vacancies occur.

During the year two young men were received as apprentice pilots, namely: Messrs. Damien Paquet and Henri Bourassa, both of Deschambault, the former on the 30th May and the latter on 24th October.

The following list shows the name, age, and residence, of each apprentice pilot now serving his time under this authority.

No.	Name.	Age.	Residence.
1	Dussault, Napoléon.....	31	Deschambault.
2	Arcand, Barthélemi.....	31	17 Dalhousie Street, Quebec.
3	Bellisle, Prudent.....	30	Deschambault.
4	Arcand, George.....	29	Lachevrotière.
5	Toupin, Constant.....	27	Three Rivers.
6	Perrault, George.....	27	Deschambault.
7	Bouillé, Narcisse.....	33	do
8	Léveillé, Joseph.....	30	Champlain.
9	Perron, Sévère.....	35	Deschambault.
10	Bellisle, Arthur.....	32	do
11	Bélangier, Charles.....	23	Lotbinière.
12	Pleau, J. E.....	24	Ste. Anne de la Péraide.
13	Hamelin, Théodule.....	19	Gronelines.
14	Perrault, Anthyme.....	25	Deschambault.
15	Raymond, J. N.....	23	do
16	Béliele, Cyrille.....	25	do
17	Veillet, George.....	22	Ste. Anne de la Péraide.
18	Perrault, Arthur.....	23	Deschambault.
19	Naud, Damase.....	26	do
20	Labranche, Melville.....	19	Portneuf.
21	Gagnon, Albert.....	18	Three Rivers.
22	Angers, Alberic.....	19	Ste. Anne de la Péraide.
23	Paquin, Azarias.....	20	Deschambault.
24	Gignac, Arthur.....	20	Portneuf.
25	Desjordy, J. B.....	21	Contrecoeur.
26	Bellisle, Félix.....	23	Deschambault.
27	Bélangier, Achille.....	20	Lotbinière.
28	Paquet, Damien.....	20	Deschambault.
29	Bourassa, Henri.....	20	do

The writ of certiorari, noted in last year's report as having been granted by the Superior Court to Pilot Trefflé Toupin in the matter of the commissioners' judgment against him for seriously damaging the ss. "State of Georgia," by grounding her at Cap à la Roche on 4th October, 1892, was in May maintained by Mr. Justice Davidson on account of the irregularity in the method of investigation, and the sentence of suspension quashed. The learned judge, however, said that the judgment would have been sustained on the merits, and he granted no costs.

This decision has shown the need for some changes in the commissioners' by-laws concerning pilots, which are now under consideration.

The following new order, made under the authority of by-law No. 152, to regulate the number of transatlantic steamships which any one pilot may serve, was put in force early in August:

"No. 7. No pilot who has taken special service with any one of the regular trans-Atlantic lines of steamships trading to the port of Montreal, shall be allowed to serve more vessels in any season of navigation than would be equivalent to one vessel for each week throughout the season, but such service shall be fairly distributed over the whole season, and no shipping company, agency, firm, or proprietor of shipping in respect of trans-Atlantic steamships trading to and from the port of Montreal, shall employ any pilot to serve more vessels than as above specified, and should the number of pilots selected by any such shipping company, agency, firm, or proprietor of shipping as aforesaid, not be sufficient to perform such service, or the pilots so selected not be

able to serve all the vessels of their employers, on the voyages to and from the port of Montreal, in the proportion hereinbefore mentioned, then such shipping company agency, firm, or proprietor of shipping as aforesaid, shall employ a pilot from those whose names appear upon the register in their regular turn of service in rotation as shown by such register."

At the beginning of November Pilots Jean Nault and Wilfred Raymond, in the employ of the Thomson and Ross Lines, were brought before the commissioners for violation of this order, but under legal advice the proceedings against them were discontinued, inasmuch as by the evidence it did not appear that they had been guilty of any violation between the date of its service upon them and that of their summons.

On the 26th September Pilot Damase Caien was severely censured for drinking habits and warned that, if again brought before the commissioners on a similar complaint he would be most severely dealt with.

There were a few mishaps to vessels, in the nature of touchings and groundings, but none was of such importance as to warrant proceedings against the pilot in charge.

On 13th August the steamship "Ramleh" in charge of Pilot Liboire Perreault, while passing downwards opposite Three Rivers, ran into and sunk a sailing barge which was coming up.

As no complaint was made to the commissioners, and, from the reports, the accident appeared to have been unavoidable, no action was taken against the pilot, but the owner of the barge took an action against the steamship in the Vice-Admiralty Court.

In connection therewith, however, on representations from the Three Rivers Harbour Commissioners as to the necessity for moderating the speed of the larger steamships when passing through that harbour, a notice was issued to the pilots to that effect.

The Montreal Commissioners were much indebted to their confrères of Three Rivers and their officers for all the assistance rendered in supervising the lighting of the wreck, sounding over it, &c., &c.

The gas buoys at Pointe aux Trembles en bas, and Ste. Croix were again much appreciated by the pilots; and the Sincennes-McNaughton Line maintained the buoys and beacons to the satisfaction of the commissioners and the pilots.

The tariff of pilotage is the same as has been in force since 5th March, 1877.

The following is an abstract from it :—

Quebec to Montreal, and <i>vice versa</i> .	Upwards.	Downwards.
	\$ cts.	\$ cts.
Pilotage of vessels in tow of steamers, for each foot of draught of water.....	2 00	2 00
do propelled by steam, for each foot of draught of water... ..	2 20	2 50
do under sail, for each foot of draught of water... ..	4 50	2 80
Moving a vessel from one wharf to another in the harbour of Montreal, or from the harbour into the Lachine Canal	5 00	5 00

Steamboat Inspection.

The amounts received and expended by the Harbour Commissioners, as pilotage authority of the district, apart from their receipts and disbursements in trust for the Montreal Decayed Pilot Fund, of which the annual report and statements are being sent you, certified by Messrs. Riddle and Common, chartered accountants, were as follows :—

Received.

From four young men, fee for their license as apprentices (\$5.00 each).....	\$20 00
From two apprentices, fee for their license as pilots (\$10.00 each).....	20 00
	\$40 00

Expended.

To Messrs. Abbotts, Campbell & Meredith, for legal advice <i>in re</i> pilot investigations, &c.....	\$ 162 30
To the committee of Montreal pilots, for services and expenses in connection with examination of apprentices.....	240 20
To C. R. Corneil, printing.....	9 25
To Morton, Philips & Co., stationery, &c.....	14 96
To D. Bentley & Co., printing.....	7 00
To Charles Garriepy, services as pilotage agent at Quebec.....	600 00
To allowance for postage, travelling, &c.....	19 00
	\$1,053 38

The deficiency of \$1,013.38 was made up out of the harbour revenues.

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

ALEXANDER ROBERTSON,
Secretary.

STATEMENT showing the Number of Branch Pilots for and above the Harbour of
Number of Pilotages, Earnings, and whether

No.	Name.	Age.	Residence.	Date of Branch.	Remarks.
1	Bouillé, Zéphirin.....	64	Deschambault.....	Mar. 1, '55	
2	Naud, Onésime.....	51	do	do 16, '70	
3	Hamelin, J. Octave.....	59	do	do 16, '70	
4	Chandonnet, Joseph.....	52	St. Henri de Lauzon Lévis.....	Aug. 2, '70	Died, 23rd Sept.; Member of Pilot Committee 1893.
5	Bouillé, Louis A.....	56	Deschambault.....	Sept. 1, '70	
6	Boudet, Prudent.....	52	Lotbinière	Oct. 10, '70	
7	Belisle, Elzéar.....	59	Deschambault.....	do 10, '70	
8	Pleau, Joseph.....	56	St. Anne de la Pérade.....	do 10, '70	
9	Brunet, Célestin.....	49	278 Dorchester Street, Montreal.....	Feb. 28, '72	
10	Belisle, Louis.....	47	Deschambault.....	do 28, '72	Member of Pilot Committee for 1893; re-elected for 1894.
11	Cairn, Damase.....	55	Portneuf.....	Oct. 1, '72	
12	Groleau, Ulrie.....	45	Gronelines.....	do 30, '72	
13	Frenette, Alfred.....	54	Portneuf.....	do 30, '72	
14	St. Amant, Alfred.....	49	Deschambault.....	do 30, '72	
15	Bélangier, Philippe.....	54	Lotbinière.....	Apr. 8, '74	
16	Gagnon, Victor.....	57	Champlain.....	do 9, '74	
17	Perrault, Narcisse.....	56	Deschambault.....	do 10, '74	President of Pilot Committee for 1893; re-elected for 1894.
18	Toupin, Tréflé.....	44	Lake Bouchette, Lake St. John.....	Sept. 22, '74	Temporarily pensioned from 1st July.
19	Auger, Cleophas.....	47	Point Lévis.....	do 22, '74	
20	Desjordi, François.....	51	Lavaltrie.....	Apr. 8, '75	
21	Labranche, Ferdinand.....	46	Portneuf.....	do 8, '75	
22	Perrault, David.....	50	Deschambault.....	do 9, '75	Secretary of Pilot Committee for 1893; re-elected for 1894.
23	Gauthier, Alexis.....	45	do	Jan. 15, '78	
24	Bouillé, Louis Z.....	43	do	do 16, '78	
25	Toupin, Joseph.....	43	Champlain.....	Nov. 15, '78	
26	Gauthier, Laurent.....	42	Deschambault.....	Dec. 10, '79	
27	Arcand, Jean.....	40	do	do 10, '79	
28	Nault, Delavoie.....	40	do	do 10, '79	
29	Gauthier, Wilbrod.....	40	do	do 10, '79	Member of Pilot Committee for 1894.
30	Mayrand, Louis.....	46	Ste. Anne de la Pérade.....	do 9, '80	
31	Dufresne, George.....	44	Deschambault.....	do 10, '80	
32	Arcand, Norbert.....	40	Champlain.....	do 10, '80	
33	Toupin, Uldéric.....	38	do	do 11, '80	
34	Bouillé, Tancrede.....	39	Deschambault.....	do 11, '80	
35	Arcand, Nestor.....	37	do	Feb. 20, '84	
36	Nault, John.....	36	do	do 20, '84	
37	Dussault, Joseph.....	37	do	do 20, '84	
38	Groleau, Gédéon.....	41	Gronelines.....	May 20, '87	
39	Bellisle, Néré.....	42	Deschambault.....	do 20, '87	
40	Perrault, Liboire.....	47	do	Apr. 20, '88	
41	Raymond, Wilfrid.....	38	do	Apr. 20, '88	
42	Hurteau, Joseph.....	32	1598 St. Catherine St., Montreal.....	Mar. 20, '89	Member of Pilot Committee for 1893; re-elected for 1894.
43	Perrault, Edouard.....	43	Deschambault.....	do 20, '89	
44	Bouillé, Lydoric.....	36	do	do 20, '89	
45	Dussault, Honoré.....	40	Ste. Petronille.....	July 16, '89	
46	Brière, Arthur.....	36	Portneuf.....	Apr. 28, '91	
47	Labranche, J. S.....	39	do	do 28, '91	
48	Perrault, Alexis.....	30	Deschambault.....	do 28, '91	
49	Dufresne, N. Côme.....	32	do	June 23, '91	
50	Nadeau, J. B.....	35	Lévis.....	Apr. 11, '93	
51	Naud, Aubert.....	40	Deschambault.....	July 11, '93	
52	Sauvageau, Jos.....	32	do	Oct. 10, '93	
			Total.....		

HARBOUR COMMISSIONERS' OFFICE,
MONTREAL, 22nd January, 1894.

Steamboat Inspection.

Quebec, on the Active List, on the 31st December, 1893, their Age, Residence, employed on Special Service or on Tour de rôle.

No. of trips to Montreal.		No. of trips to Intermediate Places.		Total No. of trips.	Earnings to Montreal.	Earnings to Intermediate Ports.	Total Earnings.	Employed on Special Service or on Tour de rôle.
In	Out	In	Out					
14	12			26	1,450 56		1,450 56	Allan Line.
13	13			26	1,516 36		1,516 36	do
18	16			34	1,237 18		1,237 18	Intercolonial Coal Co.
15	15			30	1,682 05		1,682 05	Beaver Line.
11	14			25	1,319 93		1,319 93	H. & A. Allan.
12	12			24	1,340 79		1,340 79	Dominion Line.
15	15			30	661 42		651 42	J. G. Brock.
13	13	2	2	30	1,032 41	94 34	1,126 75	Tour de rôle.
17	20			37	1,936 28		1,936 28	Donaldson Line.
12	14			26	1,414 72		1,414 72	Dominion Line.
8	6		1	15	623 73	31 50	655 23	Tour de rôle.
10	11	2	3	26	962 72	134 98	1,097 70	do
12	12	1	2	27	1,131 30	103 88	1,235 18	McLean, Kennedy & Co.
11	11	1	1	24	968 31	65 60	1,033 91	Tour de rôle.
12	12	1	2	27	1,114 38	83 95	1,198 33	do
11	13			24	1,190 31		1,190 31	do
17	16			33	1,837 67		1,837 67	Donaldson Line.
4	4			8	318 24		318 24	Tour de rôle.
16	17			33	1,808 67		1,808 67	Beaver Line.
10	9			19	905 09		905 09	Tour de rôle.
11	13			24	1,437 91		1,437 91	Dominion Line.
17	19	4	5	45	1,395 23	246 94	1,642 17	Carbray, Routh & Co.
13	14			27	1,563 69		1,563 69	Allan Line.
13	14			27	1,539 71		1,539 71	do
22	23			45	1,756 56		1,756 56	Black Diamond Line.
13	12			25	1,401 42		1,401 42	Dominion Line.
13	19	1	1	34	1,420 38	50 70	1,471 08	Tour de rôle.
21	22			43	1,679 38		1,679 38	Black Diamond Line.
14	13			27	1,509 97		1,509 97	Allan Line.
23	20		2	45	1,687 86	48 58	1,736 44	Black Diamond Line.
10	10			20	956 02		956 02	Tour de rôle.
21	21			42	1,630 59		1,630 59	Black Diamond Line.
11	9	1	2	23	848 18	80 70	928 88	Tour de rôle.
14	14			28	1,443 93		1,443 93	Hansa Line.
19	18			37	1,412 92		1,412 92	Black Diamond Line.
19	19			38	2,012 06		2,012 06	Thomson and Ross Line.
23	23			46	1,776 44		1,776 44	Black Diamond Line.
9	8	2	2	21	777 41	80 00	857 41	Tour de rôle.
22	21	1	1	46	1,685 60	52 94	1,738 54	Black Diamond Line.
11	8	2	2	23	812 02	91 50	903 52	Tour de rôle.
19	17			36	1,970 74		1,970 74	Thomson and Ross Line.
23	22	1	3	49	1,743 06	106 52	1,849 58	Black Diamond Line.
19	17	4	4	44	1,386 53	202 57	1,589 10	Carbray, Routh & Co.
14	15			29	1,468 77		1,468 77	Hansa Line.
14	14			28	1,063 53		1,163 53	Ross & Co., Quebec.
13	11	1	1	26	1,056 28	54 06	1,110 33	Tour de rôle.
12	14	1	1	28	1,246 82	58 50	1,305 32	do
22	21			43	1,666 19		1,666 19	Black Diamond Line.
14	14			28	1,261 77		1,261 77	Tour de rôle.
10	7	2	2	21	764 65	105 25	869 90	do
8	8			16	630 70		630 70	Ross & Co., Quebec.
1	2		1	4	119 29	37 63	156 92	Tour de rôle.
					67,577 73	4,730 13	69,307 86	

ALEXANDER ROBERTSON,
Secretary

HARBOUR COMMISSIONERS OF MONTREAL,
 SECRETARY'S OFFICE, MONTREAL, 22nd January, 1894.

WILLIAM SMITH, Esq.,
 Deputy Minister of Marine and Fisheries,
 Ottawa.

SIR,—I have the honour, by direction of the Harbour Commissioners of Montreal, to transmit herewith, for the information of the Honourable the Minister of Marine and Fisheries, the usual statements of, (1) Receipts and Disbursements of the Montreal Decayed Pilot Fund for the year ended 31st December, 1893, and (2) Assets belonging to the Fund at 31st December, 1893.

The following is an abstract of the former :

Receipts.

5 p.c. of all pilotage dues collected at Montreal	\$3,334 50	
do do Three Rivers .	57 74	
do do Sorel	37 11	
do do Batiscan	2 28	
do do from Montreal		
pilotage agent at Quebec, on vessels to and from Batiscan	20 21	
From sundry small amounts of percentages	19 96	
		\$ 3,471 80
Interest on investments and on cash in bank		2,638 11
		<u>2,638 11</u>
		\$ 6,109 91

Disbursements.

Pensions to old and infirm pilots and widows of pilots	\$ 4,764 05	
Messrs. Riddell & Common for audit of Fund .	25 00	
Postage stamps and stationery	10 00	
D. Bentley & Co., for printing	2 25	
The Vice Consul for Sweden and Norway, refund of percentage on barques "Roska," "Leviathan" and "Saheim," collected at Batiscan and also at Quebec	7 05	
The Norwegian Consul, Quebec, refund of percentage on barque "Elise," collected at Batiscan and also at Quebec	2 28	
		<u>4,810 63</u>
Showing a gain for the year of		\$ 1,299 28

Mr. Onésime Naud, of Sorel, aged 90, who had been a pensioner from 1st January, 1880, died on 29th May ; to whose legal heirs the full pension for the quarter during which the death occurred was paid.

Pilot Pierre Gagnon, of Three Rivers, aged 65, was, at his own request, superannuated on 1st February ; while on 11th July Pilot Trefflé Toupin, aged 44, of Lake Bouchette, Lake St. John, was granted a pension temporarily, as from 1st July, on account of impaired eyesight, which at last report was no better.

The widow of Pilot Joseph Octave Hamelin, who from the result of an accident, died in Montreal on 23rd September, was granted a pension from the date of her husband's death.

There are now on the list nine old pilots at \$360.00, and twelve widows, of whom nine receive \$149.32, two \$128.00 and one \$117.32 per annum, but paid quarterly.

I have the honour to be, sir,

Your obedient servant,

ALEXANDER ROBERTSON,

Secretary.

Steamboat Inspection.

STATEMENT No. 1. ALEXANDER ROBERTSON, Treasurer, in account with the Decayed Pilot Fund.

Cr.

		\$	cts.			\$	cts.
1893.							
Jan. 2..	To Balance from December, 1892.....	1,132	91	Jan. 11..	By D. Connolly, Vice Consul for Sweden and Norway, percentage on pilotage dues to and from Batiscan, U.S. yacht "Peerless," from Quebec to Montreal in 1892.....		
do 4..	do "H" 36-43 = 8 x 65 00 = 520 00	1	12		do "Kosha" " from Quebec.....	\$ 2	40
do 4..	do "R" 20 & 102 = 2 x 15 00 = 30 00				do "Leviathan" " from Quebec.....	2	40
do 4..	do "K" 117-119 = 3 x 30 00 = 90 00				do "Sahelm" " do.....	2	25
do 4..	do "D" 21 & 45-49 = 6 x 25 00 = 150 00						
do 12..	do "F" 164-172 = 9 x 20 00 = 180 00	1,167	50				7
	do "G" 289-290 = 2 x 20 00 = 40 00						
1894.							
May 26..	Pilot Gédéon Groleau, percentage on pilotage dues of U.S. yacht "Comanche," from Quebec to Montreal, with 10 feet draught.....			Feb. 1..	Pensions paid to the following for three months to 1st February:—		
do 27..	Pilot Arthur Briede, percentage on pilotage dues of U.S. yacht "Wild Duck," from Quebec to Montreal, with 8 feet 4 inch draught.....	1	25	do 2..	Old pilot Augustin Naud, Montreal.....	37	33
do 31..	Trinity dues for May, from Collector H. M. Customs, Montreal.....			do 3..	Widow Isabe Beaudry, Sorel.....	90	00
June 1..	Pilot D. Nault, percentage on pilotage dues of steam yacht "Halcyon," from Quebec; draught 6 feet.....	1	04	do 3..	do Sèveve Bellisle, Deschambault.....	37	33
do 7..	Percentage on pilotage dues of S.S. "Xania," from Montreal to Quebec, with 13 feet draught.....			do 3..	do Edouard Boudreau, Three Rivers.....	37	33
do 30..	Trinity dues for June, from Collector H. M. Customs, Montreal.....	280	19	do 3..	do David Bonille, Deschambault.....	29	33
July 3..	J. Johnston, Customs Officer, Batiscan, amount collected from Bk. "Elise," for percentage of her letter of 27th June.....	0	75	do 3..	do Léandre Dessureau, Sorel.....	37	33
do 7..	Pilot N. Côme Dufréne, percentage on pilotage dues of barque "Marlborough," from Quebec to Montreal, with 15 feet draught.....	1	62	do 3..	do Placide Gaillardet, St. Grégoire.....	37	33
do 30..		526	32	do 3..	do Adolphe Lisé, Batiscan.....	37	33
July 3..				do 3..	do David Mathieu, Grandines.....	37	33
do 7..				do 3..	do Zéphirin Mayrand, Contracoeur.....	32	00
do 7..				do 3..	do Edouard Naud, Lanoraie.....	90	00
do 30..				do 3..	do Old pilot Cyrille Bellisle, Deschambault.....	90	00
July 3..				do 3..	do J. B. Dorval, Cap de la Madeleine.....	90	00
do 7..				do 3..	do Athanase Dufréne, Deschambault.....	90	00
do 7..				do 3..	do Joseph Leveillé, Montreal.....	90	00
do 7..				do 3..	do Onesime Naud, Sorel.....	90	00
do 7..				do 3..	do George Raymond, Deschambault.....	90	00
do 7..				do 3..	do Messrs. Riddell and Common, audit of this fund, for the year ending 31st December, 1892.....	25	00
do 7..				Mar. 15..	Pensions paid to the following for three months ended 30th April:—		
do 7..				May 1..	Old pilot Augustin Naud.....	90	00
do 7..				do 1..	Widow Hubert Lemay.....	37	33
do 7..				do 3..	Old pilot Joseph Leveillé.....	90	00
do 7..				do 4..	Widow Isabe Beaudry.....	37	33
do 7..				do 4..	do Sèveve Bellisle.....	37	33
do 7..				do 4..	do Edouard Boudreau.....	37	33
do 7..				do 4..	do David Bonille.....	29	33
do 7..				do 4..	do Léandre Dessureau.....	37	33

Dr.

ALEXANDER ROBERTSON, Treasurer, in account with the Deceased Pilot Fund—*Concluded.*

1893.		\$	cts.	1893.		\$	cts.
July 13..	To Harbour of Montreal coupons, due 5th July— Series "M" 154-156 = 3 × \$32 50 = \$ 97 50 do "N" 36-43 = 8 × 65 00 = 520 00 do "P" 81 = 1 × 60 00 = 60 00 do "R" 20 & 102 = 2 × 15 00 = 30 00 do "R" 117-119 = 3 × 30 00 = 90 00 do "D" 21 & 45-49 = 6 × 25 00 = 150 00 do "F" 164-172 = 9 × 20 00 = 180 00 do "G" 289-290 = 2 × 20 00 = 40 00 do "H" 64-65 = 2 × 20 00 = 40 00			May	By Pensions paid to the following for three months ended 30th April— <i>Continued.</i> Widow Placide Gaillardet do Adolphe Lisé do David Mathieu do Zéphirin Mayrand do Edouard Naud Old pilot Cyrille Bellisle do Hubert A. Bellisle do J. B. Dorval do Athanase Dufresne do Onésime Naud do George Raymond do Pierre Gagnon		
do 13..	Six months' interest, due 1st July, 1893, on the shares of the Montreal Consolidated Fund, viz., \$5,000, 5 per cent stock	1,207	50	do 4..	Misses Edwidge and Louise Lavallée, Sorel, the three months' pension which would have been due their uncle, Onésime Naud, on 1st August, he having died on 28th May, and they being sole heirs		
do 31..	Trinity dues for July from Collector H. M. Customs, Montreal	125	00	do 4..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		
Aug. 31..	Trinity dues for August from Collector H. M. Customs, Montreal	494	04	June 10.	Pensions paid to the following for three months ended 31st July— Widow David Mathieu do Hubert Lemay Old pilot Augustin Naud Widow Isale Beauty do Sévère Bellisle do Edouard Boudreau do David Bonillé do Leandre Desnurean do Placide Gaillardet do Adolphe Lisé do Zéphirin Mayrand do Edouard Naud Old pilot Cyrille Bellisle do Hubert A. Bellisle do J. B. Dorval do Athanase Dufresne do Joseph Leveillé do George Raymond do Pierre Gagnon		
Sept. 11..	Pilot Alfred St. Amant, percentage on pilotage dues of H. M. S. "Mohawk," from and to Quebec with draught of 15 feet 11 inches	701	54	July 8..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		
do 30..	Trinity dues for September from Collector H. M. Customs, Montreal	3	98	July 8..	Pensions paid to the following for three months ended 31st July— Widow David Mathieu do Hubert Lemay Old pilot Augustin Naud Widow Isale Beauty do Sévère Bellisle do Edouard Boudreau do David Bonillé do Leandre Desnurean do Placide Gaillardet do Adolphe Lisé do Zéphirin Mayrand do Edouard Naud Old pilot Cyrille Bellisle do Hubert A. Bellisle do J. B. Dorval do Athanase Dufresne do Joseph Leveillé do George Raymond do Pierre Gagnon		
Oct. 31..	Trinity dues for October from Collector H. M. Customs, Montreal	510	84	Aug. 1..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		
Nov. 3..	Pilot Tréflé Toupin, percentage on pilotage dues of cruiser "Constance," \$1.25, and of American yacht "Truant," from Montreal to Quebec in 1892, 81c	419	74	Aug. 1..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		
do 29..	P. B. Vanasse, Collector H. M. Customs, Three Rivers, Trinity dues collected at that port, as per statement, namely, \$ 57 99 LESS—Bank collection charged on his cheque..... 0 25	2	06	Aug. 1..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		
do 30..	Trinity dues for November from Collector H. M. Customs, Montreal	57	74	Aug. 1..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		
Dec. 6..	Joseph Mathieu, Collector H. M. Customs, Sorel, amount of Trinity dues collected at that port in 1893, as per statement, viz., \$ 37 39 LESS—Cost of draft and postage..... 0 28	401	83	Aug. 1..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		
		37	11	Aug. 1..	By W. A. Schwartz, Norwegian Consul at Quebec, amount received from Customs Officer Batican on 3rd inst., for return to captain of barque "Elise," the same having been also collected by the Montreal Pilotage Agent in Quebec.		

Cr.

STATEMENT No. 2.

ALEXANDER ROBERTSON, Treasurer, in account with the Decayed Pilot Fund.

DR.

CR.

Nos.	Series.	Statement of the Fund.	\$ cts.
<i>Montreal Harbour Debentures.</i>			
154-156.....	"M".....	(Due 5th January, 1894), interest 6½ per cent = 3 × \$1,000.....	3,000 00
36-43.....	"N".....	(do 5th July, 1894) do 6½ do = 8 × 2,000.....	16,000 00
81.....	"P".....	(do 5th do 1896) do 6 do = 1 × 2,000.....	2,000 00
20 and 102.....	"R".....	(do 5th do 1906) do 6 do = 2 × 500.....	1,000 00
117-119.....	"R".....	(do 5th do 1906) do 6 do = 3 × 1,000.....	3,000 00
21 and 45-49.....	"D".....	(do 5th do 1915) do 5 do = 6 × 1,000.....	6,000 00
164-172.....	"F".....	(do 5th do 1917) do 4 do = 9 × 1,000.....	9,000 00
289-290.....	"G".....	(do 5th do 1918) do 4 do = 2 × 1,000.....	2,000 00
64-65.....	"H".....	(do 5th do 1921) do 4 do = 2 × 1,000.....	2,000 00
<i>City of Montreal Consolidated Fund.</i>			
165.....		(Due 1st July, 1910), interest 5 per cent = 50 × \$100.....	5,000 00
		Cash in Montreal City and District Savings Bank at 3 per cent....	2,432 19
Total			51,432 19

ALEXANDER ROBERTSON,

Treasurer.

MONTREAL, 30th December, 1893.

We hereby certify that we have examined the entries for the year 1893 as recorded in preceding pages (Statement No. 1) hereto annexed, and have found them to agree with vouchers on file; also that debentures and certificates covering the same of \$51,432.19 mentioned on opposite page (Statement No. 2) have this day been submitted for our inspection.

RIDDELL & COMMON,

Auditors.

MONTREAL, 31st January, 1894.

Steamboat Inspection.

APPENDIX No. 12.

REPORT OF THE PILOTAGE AUTHORITY OF QUEBEC FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 8th January, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.

SIR,—I have the honour to transmit you herewith, the Commissioners' report, as pilotage authority for the year 1894, as also the various statements containing the information yearly conveyed to your department.

I have honour to be, sir,
Your most obedient servant,

JAS. WOODS,
Secretary-Treasurer.

QUEBEC HARBOUR COMMISSIONERS' REPORT AS PILOTAGE AUTHORITY FOR THE YEAR 1893.

QUEBEC, 2nd January, 1894.

To the Honourable
Sir CHARLES HIBBERT TUPPER, K.C.M.G.,
Minister of Marine and Fisheries,
Ottawa.

SIR,—In compliance with the requirements of the "Pilotage Act," 36 Victoria, chapter 54, section 4, I have the honour to submit the following report from the Quebec Harbour Commissioners, as Pilotage Authority, for the year 1893.

SERVICE OF THE PILOT STATIONS.

The operations of the year began by the departure, on the 17th April, by the Intercolonial Railway, of seven pilots to join the Pilot Schooner No. 2.

On the 29th of April eleven in the Pilot Schooner No. 1, and these were followed, on 2nd and 11th May by thirteen and seven respectively, in both cases going to their destinations by the cars.

On the 9th of May, Pilot Schooner No. 5 was despatched to the pilotage grounds with sixteen pilots on board.

As usual, all the pilot stations have been provided with pilots during the season, through the Intercolonial Railway and the pilot schooners, and the service has been performed to the satisfaction of the Commissioners.

OLD PILOTS.

Previous to the opening of navigation, all the old pilots, thirteen in number, who had attained the age of sixty-five and over, were summoned before the Commissioners, under the 36th section of the Pilotage Act, in order to ascertain whether they could continue in the exercise of their duties for the ensuing year. After the usual examination, twelve of them were found able to remain in the active service, and their licenses were accordingly renewed for one year.

The other, Antoine Lapointe, Branch Pilot No. 8, was declared unable to perform his duties, and was consequently placed on the pension list.

PILOTS SUPERANNUATED.

In addition to the above named pilot: Antoine Lapointe, superannuated at the yearly examination, only one other, Edouard Genest, pilot No. 2, has been placed on the pension list during the year.

Both of those pilots close their term of service with very honourable records, Lapointe had attained the age of seventy-two (72) years and had served fifty (50) years, while Mr. Genest was seventy-five (75) years old and had been in active duty for fifty-four (54) years. Mr. Genest's record is perfectly clear, neither casualty or complaint, and there is only one entered against Mr. Lapointe, and this almost at the close of his service.

TRIALS.

Four (4) pilots have been brought before the Pilotage authority during the season of navigation—all on complaints made by shipmasters or their agents.

In the above cases two (2) were found guilty and two (2) were acquitted, and in one of the cases, the offence was considered by the Commissioners as deserving the greatest punishment that it was in their power to inflict, and consequently, Pilot Cyrille Lapointe, No. 30, was dismissed from the pilotage service, and deprived of his branch.

A statement annexed to this report conveys all the particulars as to the nature of the complaint and the result of the investigation in each case.

APPRENTICE PILOTS.

No change has taken place in relation to the apprentice pilots and they remain the same as in the report for 1892.

Although the present list contains eight (8) names, only six (6) are to be counted, as Messrs. Dugal and Nolet through their long absence are considered to be dead.

These six (6) apprentices cannot be admitted to pass their examination before the number of pilots is reduced to one hundred and twenty-five (125), as provided for in section 8 of 45 Victoria, chapter 32.

DIRECTORS OF THE CORPORATION OF PILOTS.

At their annual meeting held the 11th day of December, the pilots elected the following directors to their corporation for the ensuing year: Messrs. Edmond Laroche, sr., Joseph Fortier, Laurent Godbout, Joseph Phil. Couillard, Arbel Bernier, and Jean Baptiste Tremblay, and at a meeting of the new board, held the 12th day of December, Mr. Joseph Fortier was elected president.

Annexed to the present report are various statements not herein alluded to, which contain all the information yearly conveyed to your department by the Commissioners in their capacity of pilotage authority.

I have the honour to be, sir,
Your most obedient servant,

JAS. WOODS,
Secretary-Treasurer.

Steamboat Inspection.

QUEBEC HARBOUR COMMISSION.

STATEMENT of Trials held during the Year 1893, before the Quebec Harbour Commissioners, under the authority of the Pilotage Act, 36 Vic., Chap. 54 and 45 Vic., 32, Sec. 4.

Names of Pilots Tried.	Nature of Complaints.	Date of Trials.	Result.
Elzéar Godbout.....	For having on the fourteenth day of May, grounded SS. "Wandraham" on Apple Island.	June 3rd	Found guilty, suspended for ten months.
Charles Francis Brown	For grounding the barque "Prince Arthur" on Red Island on the 27th of June.	July 8th to 11th.	Acquitted.
Paul Paquet.....	For causing SS. "Crane" to run ashore near Bic on the 4th day of July.	July 12th.....	Acquitted.
Cyrille Lapointe.....	For causing a collision between SS. "Blue Star" and SS. "Lycia" in the Harbour of Quebec on the 5th day of August.	Aug. 11th.....	Found guilty, dismissed from the pilotage service, and deprived of branch as a duly licensed pilot.

Certified,

JAS. WOODS,
Secretary-Treasurer.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 2nd January, 1894.

QUEBEC HARBOUR COMMISSION.

List of Apprentice Pilots acting immediately under the Quebec Harbour Commissioners Pilotage Authority, on the 31st December, 1893.

No.	Names.	When indentured.	Remarks.
1	George Dugal.....	11th April, 1871.	Absent since the fall of 1877. Absent since the fall of 1878. It is stipulated in the indentures of those apprentices that they will not be admitted to pass their examination before the number of pilots is reduced to 125 as provided for by the Act 45 Victoria, Cap. 32.
2	Ernest Nolet.....	19th Mar. 1874.	
3	Adéard Vezina.....	23rd May, 1883.	
4	Jean-Bte. Pouliot.....	23rd do 1883.	
5	Joseph Thivierge.....	23rd do 1883.	
6	Léonidas Lachance.....	23rd do 1883.	
7	Eudore Langlois.....	23rd do 1883.	
8	Frs.-Xav. Eustache alias Wm. Doiron.	12th July, 1883.	

Certified,

JAS. WOODS,
Secretary-Treasurer.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 2nd January, 1894.

STATEMENT showing the Number of Pilots for and below the Harbour of Quebec on the Active List, on the 31st December, 1893; the Number who Retired, struck off the Active List or Died during the Year; the Number Temporarily Suspended; the Number who were unable to Serve; the Number in charge of the Government Steamers, &c., &c.

Number.	Name.	Age.	Residence.	Number of Pilotages effected.			Casualties and Remarks.
				Inwards.	Outwards.	Movages.	
1	Régis Ménard	78	St. Valier	5	7	5	Pensioned the 1st July. Discontinued on the 14th August on account of sickness. do do 1st do do One of the directors of corporation of pilots, re-elected at last election.
2	Eduard Genest	75	Ste. Pétronille, Orleans.	2	1	3	
3	Joseph Dick	74	St. John, Orleans.	4	2	2	
4	David Bouffard	75	St. Laurent, Orleans.	5	3	4	
5	Jos. Phil. Couillard	71	Quebec	0	0	0	
6	Jérémie Dufresne	77	do	6	5	3	Employed by the Allan Line. do by a collier. Sick during 38 days. Discontinued the 11th of August on account of sickness. do 5th do
7	Antoine Gobeil	65	St. Laurent, Orleans	11	10	2	
8	Pierre Fontaine	66	Quebec	12	12	3	
9	Victor Demers	68	Lauzon, Lévis	6	4	4	
10	Joseph Plante	63	St. Paul's Bay	4	2	3	
11	Louis Thivierge	69	St. John, Orleans	3	3	3	
12	Charles Francis Brown	66	Quebec	6	7	5	
13	Paul Pâquet	62	St. John, Orleans	6	6	5	
14	Joseph Pouliot	67	do	6	5	3	
15	George Normand	63	Crane Island	6	5	5	
16	David Damour	61	Trois-Pistoles	6	6	4	
17	Charles Vézina	59	St. Michel, Bellechasse	11	10	3	
18	Nunis Lachance	59	do	9	11	2	
19	Annibal Baquet	58	Quebec	14	14	3	
20	Joseph Gravel	64	do	6	5	5	
21	Auguste Couillard Després	57	Lauzon, Lévis	12	12	4	
22	Jean-Bte. Pouliot	52	St. John, Orleans	6	6	5	
23	Jean Gobeil	57	do	4	5	4	
24	Joseph Pâquet	56	do	12	12	3	
25	Louis Edmond Morin	55	Quebec	25	23	2	
26	Moïse Lachance	56	St. John, Orleans	6	6	3	
27	Joseph S. Brown	59	Quebec	11	14	3	
28	Hubert Raymond	54	Bienville, Lévis	5	8	4	
29	Achille Damour	54	St. Valier	7	8	4	
30	Cyrille Lapointe	54	St. Laurent, Orleans	3	2	4	
31	Joseph Pouliot	50	St. John do	6	6	3	
32	Edmond Larochele	50	St. Michel, Bellechasse	0	0	0	

STATEMENT showing the Number of Pilots for and below the Harbour of Quebec, &c.—*Concluded.*

Number.	Name.	Age.	Residence.	Number of pilotages effected.			Casualties and Remarks.
				Inwards.	Outwards.	Movages.	
83	Louis Honoré Lapiere.	43	Notre-Dame, Lévis.	3	8	5	Master of Pilot Schooner No. 1, part of season.
84	Joseph Eugene Lachance	39	St. John, Orleans.	6	6	5	
85	David Arthur Bouffard.	39	St. Laurent, Orleans.	6	6	5	
86	Jean Théophile St. Laurent.	42	Quebec.	14	13	3	Employed by the Dominion Line.
87	Jacques Georges Dugas.	41	do.	6	5	3	Employed by a collier.
88	Joseph Victor Gaudreau.	46	Ste. Pétronille, Orleans.	9	10	3	Master of the Red Island Lightship.
89	Louis alias Trefflé Deisle	39	Trois-Pistoles.	0	0	0	Sick all the season.
90	J. Bte. Couillard.	42	Cap St. Ignace.	6	5	3	
91	Chs. Pelletier.	43	St. Michel, Bellechasse.	0	0	0	
92	Jos. alias Philéas Langlois.	47	St. John, Orleans.	6	6	5	
93	Nazaire Delisle.	44	do.	6	5	5	
94	J. F. Bonaventure Lavoie.	41	Ste. Luce, Rimouski	7	5	5	
95	Adjuitor Baillargton.	39	Ste. Pétronille, Orleans.	8	7	3	Employed by a collier.
96	Samuel Rioux.	40	Quebec.	10	10	2	Employed by the Allan Line.
97	Chs. Oct. Clavet.	39	St. Michel, Bellechasse.	12	10	2	Employed by a collier.
98	Joseph Dion.	37	Notre-Dame, Lévis.	11	11	3	do
99	Paul Lachance.	37	Quebec.	13	14	2	do
100	Arcadius Jovin.	35	Ste. Luce, Rimouski	6	5	5	do
101	Léon Labrecque.	43	St. Laurent, Orleans.	6	5	3	
102	Paul Lachance.	38	St. John, Orleans.	9	9	5	Master of Steamer Polino.
103	Joseph Pouliot.	37	do.	0	0	0	One of the Directors of the Corporation of Pilots. Not re-elected at last election.
104	Joseph Lavochelle.	36	St. Michel, Bellechasse.	6	13	2	
105	Adjuitor Lachance.	35	do	17	8	2	Employed by the Donaldson & Ross Lines.
106	Frs. Gaudreau.	42	Quebec.	6	8	5	Employed by a collier part of the season.
107	Arthur Keenig.	42	L'Islet	12	11	5	Employed by a collier.
108	David Dumas.	40	Notre-Dame, Lévis.	7	5	5	
109	Joseph Lachance.	39	St. Laurent, Orleans.	4	2	4	Master of Pilot Schooner No. 1 part of season.
110	Paul Pâquet.	35	St. John, Orleans.	6	6	4	
111	Alphonse Pouliot.	41	do	6	5	4	
112	Elzéar Normand.	34	L'Islet.	6	5	5	
113	Jean Bernier.	34	do	18	13	3	Employed by the Donaldson & Ross Lines.
114	Joseph Pâquet.	32	St. John, Orleans.	6	6	5	
115	Jean-A. Lachance.	31	St. Henri Co., Lévis.	6	5	4	
116	Arthur Baillargton.	36	Ste. Pétronille, Orleans.	4	5	3	Master of Pilot Schooner No. 1 part of season.
117	Joseph Vesnia.	32	St. Laurent, Orleans.	5	6	5	

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118	Herménilde Guénard.....	35	St. Thomas, Montmagny.....	6	7	5	Employed by a collier.
119	Elzéar Desrochers.....	40	Quebec.....	9	8	3	Sick during 34 days.
120	John J.-A. Irvine.....	37	Green Island.....	6	4	5	
121	Fred. Bouffard.....	36	St. Laurent, Orleans.....	6	6	5	
122	Jules Asselin.....	32	St. Michel, Bellechasse.....	7	5	5	
123	Prudent Marmon.....	34	Beauport.....	5	5	3	Employed by a collier.
124	Luceien Lachance.....	32	Notre-Dame, Lévis.....	10	9	4	
125	Alfred Dion.....	35	Green Island.....	6	7	3	Employed by the Dominion.
126	Camille Bernier.....	35	St. Michel, Bellechasse.....	12	13	3	
127	Moise Blouin.....	42	St. John, Orleans.....	6	5	4	
128	Moise alias Laurent Godbout.....	33	Quebec.....	5	7	4	
129	Alfred Godreau.....	40	Cap St. Ignace.....	5	5	5	
130	Alfred Raymond.....	32	Kamouraska.....	6	5	3	Employed by a collier.
131	Philéas Lachance.....	35	St. John, Orleans.....	10	9	3	do
132	Joseph H. Talbot.....	31	Berthier.....	10	11	3	
133	Moise Arthur Lachance.....	30	St. John, Orleans.....	6	5	4	
134	Louis Fra. Thivierge.....	27	do.....	6	5	4	
135	François alias Joseph N. Dallaire.....	32	St. Laurent, Orleans.....	6	6	4	
136	Joseph Emilien alias Emile La- chance.....	27	St. John, Orleans.....	6	5	5	
137	Alphonse Asselin.....	28	St. Michel, Bellechasse.....	13	13	3	do
138	Edmond Larochele.....	27	do.....	12	12	3	do
139	Joseph Plante.....	27	St. Paul's Bay.....	6	6	5	
140	Alphonse Pâquet.....	27	St. John, Orleans.....	6	6	5	
141	Paul alias Napoleon Pouliot.....	34	do.....	6	6	5	
142	Arthur Dorion.....	37	St. Joseph, Lévis.....	5	7	5	
143	Adélaré Bernier.....	32	Quebec.....	11	13	3	

Certified.

JAS. WOODS,
Secretary-Treasurer.

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 2nd January, 1894.

REPORT OF THE DECAYED PILOT FUND OF QUEBEC FOR THE YEAR 1893.

QUEBEC, 30th December, 1893.

WILLIAM SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to forward a detailed statement in duplicate of the moneys received and expended by the Decayed Pilot Fund of Quebec for the year 1893; also a similar statement of the accounts of the Corporation of Pilots, viz:—

Total amount received by the Corporation of Pilots was	\$132,721.35
The total amount expended.....	22,906.99

Leaving a balance of.....	\$109,814.37
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To be distributed among an average of 138 practising pilots, giving a net dividend to each of \$795.75.

One hundred and forty-one foreign vessels have paid..	\$ 18,291.06
Eight hundred and seventy-three British vessels paid..	114,430.30

All of which is respectfully submitted.

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

F. X. DION,
Secretary Treasurer.

STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, during the year 1893.

RECEIPTS.		\$	cts.	\$	cts.
To	Balance of 1892.....	7,831	70		
	Percentage on contributions of pilots.....	9,376	80		
	Interest on investments.....	3,078	00		
	Interest by savings bank.....	218	06		
					20,504 56
EXPENDITURE.					
By	Pensions.....	8,541	91		
	Relief ..	295	48		
	Loans to the corporation.....	400	00		
	Salaries.....	550	00		
	Deposit in savings bank.....	10,600	00		
	Balance on hand.....	117	17		
					20,504 56
PENSIONERS RELIEVED BY THE FUND.					
	Jean Gobeil.....	55	50		
	Victor Demers.....	34	66		
	Edouard Genest.....	42	66		
	Louis Thivierge.....	82	66		
	Charles Pelletier.....	32	00		
	Joseph Dick.....	24	00		
	Joseph Plante.....	24	00		
					205 48

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STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the
Decayed Pilot Fund of Quebec, &c.—*Continued.*

PENSIONERS AT THE EXPENSE OF THE FUND.	\$ cts.	\$ cts.
AMOUNT PAID TO EACH DURING THE YEAR FROM 1ST NOVEMBER, 1892, TO 1ST NOVEMBER, 1893.		
<i>Eighteen Pilots at \$100.</i>		
Laurent Tremblay.....	100 00	
François Noël.....	100 00	
Thomas Després, account.....	75 00	
Pierre Lapierre.....	100 00	
Jean Pouliot.....	100 00	
Gabriel Lachance.....	100 00	
Joseph Pepin.....	100 00	
Dominique Girard.....	100 00	
Marcel LeBel.....	100 00	
François Vézina.....	100 00	
Louis Dugal.....	100 00	
J.-Bte Talbot.....	100 00	
Jean Chassé.....	100 00	
F.-X. Dallaire.....	100 00	
Joseph Pouliot.....	100 00	
Antoine Lapointe, pensioned from April, 1893.....	55 83	
George Audet dit Lapointe, pensioned from 20th October, 1892.....	103 05	
Edouard Genest, pensioned from 1st July, 1893.....	33 33	
		1,667 21
<i>Five Pilots at \$92.</i>		
Dominique Verreault.....	92 00	
Louis Fontaine.....	92 00	
Edouard Labrière.....	92 00	
François Thivierge, died 16th March, 1893.....	50 08	
Julien Dion.....	92 00	
		418 00
<i>Five Pilots at \$84.</i>		
François Godreau, died 10th August, 1893.....	65 23	
Clovis Anctil.....	84 00	
Abraham Després.....	84 00	
Alexis Vézina.....	84 00	
Amable St-Laurent.....	84 00	
		401 23
<i>Two Pilots at \$82.</i>		
Joseph Lavoie.....	82 00	
Ovide Dick.....	82 00	
		164 00
<i>Two Pilots at \$80.</i>		
F.-X. Corriveau.....	80 00	
Frs. Pelletier.....	80 00	
		160 00
<i>Three Pilots at \$73.</i>		
Léandre Raymond.....	73 00	
Pierre Charest.....	73 00	
Paul Pouliot.....	73 00	
		219 00
<i>One Pilot at \$47.</i>		
James Forbes, arrears.....	11 75	
do account.....	35 25	
		47 00

STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, &c.—Continued.

PENSIONERS AT THE EXPENSES OF THE FUND—Continued.		\$ cts.	\$ cts.
WIDOWS OF PILOTS.			
<i>Twenty-five Widows at \$58.</i>			
Widow of J.-Bte Dion		58 00	
do	Charles Pouliot	58 00	
do	Louis Laprise	58 00	
do	Maximin Caron, arrears	14 50	
do	do account	43 50	
do	Alexis Pelletier	58 00	
do	Pierre Pepin, married, 12 August, 1893.	45 39	
do	Alex. Vaillancourt	58 00	
do	Magloire Delisle	58 00	
do	Charles Bernier, died, 7th August, 1893.	44 61	
do	Frs. Thivierge, pensioned 16th May, 1893; died 11th October, 1893.	22 30	
do	Paul Langlois	58 00	
do	Alexis Delisle	58 00	
do	Paul Blouin	58 00	
do	Yves Sylvestre	58 00	
do	Edouard Petitgrew	58 00	
do	Charles Dumas, account	43 50	
do	Charles Brown	58 00	
do	Edouard Marcoux	58 00	
do	Laurent Godbout	58 00	
do	J.-Ste Bernier	58 00	
do	Laurent Larochelle	58 00	
do	Frs. Dumas	58 00	
do	Hilaire Touvin	58 00	
do	Gilbert Baillargeon, died, 14th September, 1893.	52 65	
do	Louis Jos. Lavoie	58 00	
			1,368 45
<i>Eighteen Widows at \$55.</i>			
Widow of Pierre Ruelland		55 00	
do	Paul Larochelle, died, 12th February, 1892.	1 83	
do	Joseph Raymond	55 00	
do	Pierre Laprise	55 00	
do	F.-X. Delisle	55 00	
do	Michel Guénard	55 00	
do	Barthélemi Lachance	55 00	
do	Hubert Dumas	55 00	
do	Cyprien Langlois	55 00	
do	Pierre Gourdeau (M.C.)	55 00	
do	F.-X. Lachance	55 00	
do	Joseph Morency	55 00	
do	Narcisse Forgues	55 00	
do	Pierre Lemieux, arrears	13 75	
do	do year	55 00	
do	Jean Coulombe	55 00	
do	Jean Frs. Lamarre	55 00	
do	Isaie Marticotte	55 00	
			895 58
<i>Sixteen Widows at \$54.</i>			
Widow of Pierre Gourdeau, died 27th January, 1893.		12 99	
do	Nicholas Fortin	54 00	
do	Gabriel Plante	54 00	
do	Eustache Doiron	54 00	
do	Joseph Lapointe	54 00	
do	J. E. Adam, account	40 50	
do	Michel Fournier	54 00	
do	J.-Bte Paquet	54 00	
do	Edouard Demers	54 00	
do	Louis Ol. Leclerc	54 00	
do	François Godreau, pensioned from 10th August, 1893	12 00	
do	Damase Babin	54 00	
do	Paschal Dick	54 00	
do	Bénoni Normand, died 20th April, 1893.	25 50	
do	François Rioux	54 00	
do	Amable Genest, arrears	13 50	
do	do account	40 50	
			738 90

Steamboat Inspection.

STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, &c.—Continued.

PENSIONERS AT THE EXPENSE OF THE FUND—Continued.	\$ cts.	\$ cts.
<i>WIDOWS OF PILOTS—Continued.</i>		
<i>Twelve Widows at \$52.</i>		
Widow of J.-Bte Tremblay, died 12th September, 1893	45 06	
do Magloire Mercier	52 00	
do Louis Crépault	52 00	
do Alexis Roy	52 00	
do Antoine Boucher	52 00	
do Joseph Dupil	52 00	
do Pierre Gourdeau	52 00	
do Vital Charest, died 13th August 1893	40 84	
do Jean Giroux, died 26th October, 1893	51 28	
do David Cinq-Mars	52 00	
do Félix Caron	52 00	
do Pierre Curodeau	52 00	
		605 18
<i>Twelve Widows at \$50.</i>		
Widow of Fabien Langelier	50 00	
do Pierre Rose	50 00	
do Amable Fournier, arrears	25 00	
do do account	37 50	
do J.-Bte Laroche	50 00	
do Thomas Dick	50 00	
do Joseph Simpson	50 00	
do Dennis Glynn	50 00	
do Frédéric Simpson	50 00	
do Henri Noël	50 00	
do A. Lavoie (L.M.)	50 00	
do Wm. Irvine	50 00	
do Julien Langlois, account	37 50	
		600 00
<i>Nine Widows at \$48.</i>		
Widow of Joseph Lévesque, account	36 00	
do Benj. Pineau	48 00	
do François Côté	48 00	
do C. F. Keening	48 00	
do Ovide Lachance	48 00	
do Jean Dion	48 00	
do L. Langlois (E.D.), died 25th October, 1893	47 20	
do Jean Pelletier	48 00	
do Germain Caron	48 00	
		419 20
<i>Five Widows at \$40.</i>		
Widow of Edouard Turgeon	40 00	
do Célestin Côté	40 00	
do Paul Blouin	40 00	
do F.-X. Lachance (M.L.)	40 00	
do P. Desrosiers, arrears	10 00	
do do year	40 00	
		210 00
<i>Six widows at \$34.</i>		
Widow of Jacques Dandurand	34 00	
do Henri Verrault	34 00	
do Guill. Morency	34 00	
do André Keable	34 00	
do David F. Pelletier	34 00	
do Pierre Rouleau	34 00	
		204 00

STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the De-
cayed Pilot Fund of Quebec, &c.—Continued.

PENSIONERS AT THE EXPENSE OF THE FUND—Continued.		\$	cts.	\$	cts.
WIDOWS OF PILOTS.					
<i>Seven Widows at \$32.</i>					
Widow of	Magloire Côté		32	00	
do	Louis Langlois (A.R.)		32	00	
do	George Simard, arrears		8	00	
do	do account		16	00	
do	Alfred Turgeon		32	00	
do	Fabien Caron		32	00	
do	Antoine Fortier		32	00	
do	Thomas McNeil		32	00	
					216 00
<i>Children.</i>					
Children of	Dvd. Charest, infirm (1)		15	00	
do	H. Couillard do (1)		18	75	
do	do do (1) ac.		11	25	
do	Ths. Boutin do (1)		15	00	
do	P. Toussaint do (1)		15	00	
do	F. Dupuis do (1)		15	00	
do	N. Fortin do (1) ac.		7	50	
do	P. S. Laprise do (3)		37	49	
do	Isaac Forbes do (2)		27	48	
do	Jean Dugas do (2)		13	74	
do	Jos. Langlois do (1) arrears		1	87	
do	do do year		15	00	
do	J. Jahan do (1)		15	00	
					208 08
RECAPITULATION OF PENSIONS.					
18 Pilots at \$100			1,667	21	
5 do at 92			418	08	
5 do at 84			401	23	
2 do at 82			164	00	
2 do at 80			160	00	
3 do at 73			219	00	
1 do at 47			47	60	
36 Pilots.					
25 widows at \$58			1,368	45	
18 do at 55			895	58	
16 do at 54			738	90	
12 do at 52			605	18	
12 do at 50			600	00	
9 do at 48			419	20	
5 do at 40			210	00	
6 do at 34			204	00	
7 do at 32			216	00	
110 Widows.					
15 children at \$15, \$12.50 and \$10.			208	08	
161 Pensioners			8,541	91	
CREDIT.					
To balance of 1892			887	40	
Reserve fund 1892			500	00	
Customs of Montreal			68,229	59	
do of Three Rivers			1,933	84	
do Chicoutimi			840	97	
do Tadousac			504	68	
do Sorel			1,383	36	
do Batiscan			1,247	79	
Interest—National Bank			165	60	
Fines			120	00	
Lost time			3,345	31	
Pilotage—Received at Quebec			58,581	13	
					137,739 67

Steamboat Inspection.

STATEMENT of Money received and disbursed by the Corporation of Pilots for the
Decayed Pilot Fund of Quebec, &c.—*Continued.*

DEBIT.	\$	cts.	\$	cts.
By expenses of pilot boats.....	\$	1,938	72	
Less.....		20	04	
				1,918 67
Pilots' expenses.....	764	09		
Less.....		3	65	
				760 44
General expenses.....				1,260 98
Provisions.....	\$	1,876	73	
Less sold.....		39	52	
				1,837 21
Rent.....				406 64
Wages of seamen.....				1,594 99
do cooks.....				442 47
Interdiction.....				1,130 75
Indemnity to directors.....				600 00
do to captains.....				296 00
do to the Saguenay Station.....				225 00
Shares of pilot boats.....				600 00
Interest on loans.....				51 80
Loan paid on account, \$1,100.....				100 00
Insurance.....				107 37
Pilotage: refunds.....				772 60
Salaries of employees.....				1,550 00
Pilot Fund.....				9,252 06
Reserve Fund.....				500 00
Dividend.....				113,179 00
Balance.....				1,153 68
				137,739 67
STATEMENT OF FUNDS.				
Moneys loaned.....				53,752 71
Amount in savings bank.....				10,600 00
do Secretary-Treasurer's hands.....				117 17
				64,469 88
To be deducted arrears of pension due this day.....				303 23
				64,166 65

F. X. DION,
Secretary-Treasurer.

QUEBEC, 30th December, 1893.

We the undersigned certify to having minutely examined the books and accounts of the Corporation of Pilots and having found them correct.

FRANÇOIS GAUDREAU, } *Auditors.*
HUBERT RAYMOND, }

THOMAS BOISSINOT, *Accountant.*

APPENDIX No. 13.

REPORT OF THE PILOTAGE COMMISSIONERS AT HALIFAX, N.S., FOR
THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

HALIFAX, N.S., 6th January, 1894.

Hon. Minister of Marine and Fisheries,
Ottawa.

SIR,—I beg leave to transmit, for the information of the department, the annual returns of the Pilotage Authority of the District of Halifax, viz. :—

Statement of receipts and expenditures.

do superannuation funds.

do net earnings of pilots.

Return of vessels entered, British and foreign.

do do outwards do

List of licensed pilots.

Respectfully, &c.,

Your obedient servant,

J. TAYLOR WOOD,

Secretary.

STATEMENT of Receipts and Expenditure for the Year ending 1893.

DR.		\$ cts.
By Paid necessary expenses attending meetings and investigations		710 00
Office rent and taxes.....		276 00
Printing, stationery, cleaning office and sundries		650 86
Salary of secretary and treasurer.....		600 00
Superannuation fund.....		1,978 30
Balance.....		953 45
		5,168 61
CR.		
By Balance on hand December 31, 1892, and amount short credited.		2,685 58
Outward pilotage.....		1,641 41
Commissions		821 62
Six months' interest on Dominion stock		20 00
		5,168 61
By Balance on hand December 31, 1893.....		953 45

J. TAYLOR WOOD,

Secretary-Treasurer.

Steamboat Inspection.

STATEMENT of Superannuation Fund.

	CR.	\$	cts.
By Balance as per statement December 31, 1892.....		5,693	37
Received commissions for year		504	38
do interest on investments and amount transferred from Pilotage Fund.....		5,158	85
	DR.		11,356 60
To Cash paid family late Pilot Smith	\$	22	50
do do Nickerson.		30	00
Balance at credit of Superannuation Fund.....	11,304	10	
		11,356	60
By Amount at credit of Superannuation Fund, December 31, 1893.....		11,304	10
To Amount in Dominion Stock.....	\$	5,200	00
do Savings Bank		5,819	45
do Union Bank.....		284	65
		11,304	10

J. TAYLOR WOOD,
Secretary-Treasurer.

OFFICE OF COMMISSIONER OF PILOTS,
HALIFAX, 31st December, 1893.

RETURN of Vessels entered Inward at the Port of Halifax, N.S., from 1st January to 31st December, 1893, subject to compulsory Pilotage Dues.

BRITISH.

	Schooners.	Brigantines.	Barges.	Barques.	Ships.	Steamers.	Tonnage.	Amount of Pilotage Dues.
.....	137	49	40	34	3	543	631,593	\$ cts. 12,093 50

FOREIGN.

.....	22	10	.....	23	1	115	117,273	2,481 23
Total..	159	59	40	57	4	658	748,866	14,574 73

RETURN of Vessels entered Outward at the Port of Halifax, N.S., from 1st January to 31st December, 1893, subject to compulsory Pilotage Dues.

BRITISH.

	Schooners.	Brigantines.	Barges.	Barques.	Ships.	Steamers.	Tonnage.	Amount of Pilotage Dues.
.....	16	6	18	33	2	471	596,203	\$ cts. 5,967 13

FOREIGN.

.....	1	1	.....	23	1	114	114,267	1,297 28
Total..	17	7	18	56	3	585	710,470	7,264 41

J. TAYLOR WOOD,
Secretary and Treasurer.

LIST of Pilots of the Port of Halifax.

Name.	No.	Residence.	Age.
John Fleming	1	Ketch Harbour	81
William Fleming	2	Halifax	27
James Holland	3	Duncan's Cove	57
William Baker	4	Halifax	58
Bernard Gallagher	5	do	69
Daniel Martin	6	Ketch Harbour	48
Joseph Reno	7	Herring Cove	68
Patrick Hayes	8	do	72
Hugh Munroe	9	Halifax	58
Jeremiah Holland	10	Duncan's Cove	61
Edward Bayers	11	Halifax	52
James Hanrahan	12	Ferguson's Cove	56
William Beazley	13	do	53
John Hayes	14	Halifax	43
James Spears	15	Herring Cove	35
John Beazley	16	Halifax	33
Chas. Gl. zebrook	17	do	63
Chas. F. Martin	18	do	28
William White	19	Ferguson's Cove	36
Thomas Hayes	20	Herring Cove	34
Thomas Reno	21	do	33
Chas. Martin	22	Halifax	64
Henry Latter	23	Herring Cove	29
John Johnson	24	Bear Cove	69
James Conway	25	Ferguson's Cove	31
James Flemiug	26	Ketch Harbour	54

Total net earnings of pilots for 1893, \$18,963.33, and \$737.60 net earnings for each man for 25, and \$538.64 net earnings for one man.

One pilot was superannuated 30th September, 1893.

J. TAYLOR WOOD,
Secretary-Treasurer.

Steamboat Inspection.

APPENDIX No. 14.

REPORT OF THE PILOTAGE COMMISSIONERS OF GLACE BAY, C.B., FOR THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

PILOTAGE DISTRICT, GLACE BAY, C.B., 24th January, 1894.

The Honourable Minister
of Marine and Fisheries,
Ottawa.

SIR,—Herewith I beg to forward accounts for the Pilotage District for year ended 31st December, 1893.

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

CHARLES H. RIGBY,
Secretary.

NAMES of Pilots and License Fees collected during year.

No.	Age.	Name of Pilot.	License Fees.	Boat Licenses.
			\$ cts.	\$ cts.
1	60	Edward Petrie.....	3 00	
2	54	Joseph Shanahan.....	3 00	
3	46	John Ryan.....	3 00	
4	62	James Farrell.....	3 00	1 00
5	56	Thos. Ling.....	3 00	1 00
6	49	Edmond Petrie.....	3 00	
7	57	Alexander McLellan.....	3 00	1 00
8	58	Allen McPherson.....	3 00	
9		Capt. M. Floriario, barge "Mabel".....	10 00	
10		do do "Alice".....	10 00	
11		do do "Lizzie".....	10 00	
12		Capt. R. Nutter, tug "D. H. Thomas".....	10 00	
			64 00	3 00

RECAPITULATION.

8 renewal licenses.....	\$ 24 00
4 barge and tug licenses.....	40 00
3 open boat licenses.....	3 00
	\$67 00

CHARLES H. RIGBY,
Secretary.

GLACE BAY, C.B., 30th December, 1893.

DISBURSEMENT and Receipt Account for the Year 1893.

1893.		\$	cts.	\$	cts.
Jan. 1	To Balance from last year		21 00		
Dec. 31	Paid E. Mahon, retired pilot allowance		50 00		
	Secretary allowance		20 00		
	Three pilot commissioners, travelling fees		15 00		
	<i>Contra.</i>				106 00
Dec. 31	By 8 renewal licenses to pilots at \$3.		24 00		
	4 licenses to barge and tug captains at \$10.		40 00		
	3 open boat licenses at \$1.		3 00		
	Balance		39 00		
					106 00

CHARLES H. RIGBY,

Secretary.

GLACE BAY, C.B., 30th December, 1893.

PILOTAGE DISTRICT OF GLACE BAY, C. B.

PILOTAGE Collected at Glace Bay, C. B., year ended 31st December, 1893.

Date.	Tons.	Vessels' Name.	Nationality.	Amount Paid.
1893.				\$ cts.
Jan. 4.	250	Barquentine Aureola	British	12 00
do 12.	95	Schooner Effie M. Lake	do	5 00
do 12.	141	Barquentine Sparkling Water	do	7 00
do 21.	182	Brigantine J. A. Horsey	do	14 00
Feb. 23.	293	Steamship Curlew	do	18 00
April 6.		Schooner Bonnie Bell	do	6 00
do 22.	931	Steamship Cacouna	do	44 00
May 1.	1108	do Cape Breton	do	52 00
do 6.	141	Brigantine Katie	do	6 00
do 6.	1093	Steamship Petunia	do	50 00
do 6.	960	do Black Prince	do	46 00
do 10.	1026	do Glenlevit	do	48 00
do 10.	931	do Cacouna	do	44 00
do 11.	471	Barquentine H. W. Palmer	do	26 00
do 12.	892	Steamship Bedlington	do	42 00
do 12.	959	do Garnet	do	46 00
do 17.	1093	do Petunia	do	50 00
do 18.	82	Schooner A. K. Walter	do	6 00
do 18.	1123	Steamship Edith	do	52 00
do 18.	1108	do Cape Breton	do	52 00
do 19.	931	do Cacouna	do	44 00
do 22.	1026	do Glenlevit	do	48 00
do 24.	959	do Garnet	do	46 00
do 26.	1123	do Edith	do	52 00
do 30.	931	do Cacouna	do	44 00
do 31.	1093	do Petunia	do	50 00
June 2.	960	do Black Prince	do	46 00
do 2.	892	do Bedlington	do	42 00
do 3.	1026	do Glenlevit	do	48 00
do 6.	959	do Garnet	do	46 00
do 6.	249	Schooner Nellie Shaw	do	12 00
do 8.	1123	Steamship Edith	do	52 00
	183	Barquentine Nelly	do	14 00
June 9.	198	Brigantine Plymouth	do	10 50
do 10.	1093	Steamship Petunia	do	50 00
do 12.	931	do Cacouna	do	44 00

Steamboat Inspection.

COLLECTIONS of Pilotage for the Year ended 31st December, 1893—*Continued.*

Date.	Tons.	Vessel's Name.	Nationality.	Amount Paid.
				\$ cts.
1893.				
June 13.	836	Steamship Bonavista	British	40 00
do 14.	1026	do Glenlevit	do	48 00
do 15.	315	do Albert	do	15 00
do 19.	1223	do Pencalenick	do	56 00
do 20.	959	do Garnet	do	46 00
do 22.	1123	do Edith	do	52 00
do 22.	1093	do Petunia	do	50 00
do 24.	1026	do Glenlevit	do	48 00
do 26.	931	do Cacouna	do	44 00
do 27.	1045	do Astrion	do	48 00
do 28.	960	do Black Prince	do	46 00
do 29.	1223	do Pencalenick	do	56 00
July 3.	959	do Garnet	do	46 00
do 5.	1123	do Edith	do	52 00
do 5.	1093	do Petunia	do	50 00
do 7.	1027	do Glenlevit	do	48 00
do 7.	1002	do Sunshine	do	48 00
do 8.	123	Schooner Thistle	do	6 00
do 8.	1046	Steamship Astrion	do	48 00
do 10.	470	Barque W. McLaughlin	do	26 00
do 11.	1223	Steamship Pencalenick	do	56 00
do 13.	315	do Albert	do	15 00
.....	1108	do Cape Breton	do	52 00
.....	959	do Garnet	do	46 00
July 18.	1123	do Edith	do	52 00
do 18.	1093	do Petunia	do	50 00
do 20.	1026	do Glenlevit	do	48 00
do 20.	930	do Cacouna	do	44 00
do 22.	315	do Albert	do	15 00
do 22.	1002	do Sunshine	do	48 00
do 22.	1045	do Astrion	do	48 00
do 22.	.....	Brigantine Alaska	do	26 00
do 26.	1223	Steamship Pencalenick	do	56 00
do 27.	959	do Garnet	do	46 00
do 29.	141	do Zebra	do	9 00
do 29.	1412	Barge Rembrandt	do	32 00
Aug. 1.	930	Steamship Cacouna	do	44 00
do 2.	1123	do Edith	do	52 00
do 4.	1093	do Petunia	do	50 00
do 4.	1046	do Astrion	do	48 00
do 7.	1002	do Sunshine	do	48 00
do 8.	1223	do Pencalenick	do	56 00
do 10.	167	Schooner Ocean Swell	do	14 00
do 11.	959	Steamship Garnet	do	46 00
do 15.	1123	do Edith	do	56 00
do 18.	1093	do Petunia	do	50 00
do 19.	1046	do Astrion	do	48 00
do 19.	251	Barquentine Aureala	do	12 00
do 22.	1002	Steamship Sunshine	do	48 00
do 22.	930	do Cacouna	do	44 00
do 23.	429	Barque Fredrica	do	24 00
do 25.	959	Steamship Garnet	do	46 00
do 26.	1223	do Pencalenick	do	56 00
do 29.	1108	do Cape Breton	do	52 00
do 29.	131	Schooner Katie	do	6 00
do 30.	892	Steamship Bedlington	do	42 00
do 31.	471	Barque H. W. Palmer	do	26 00
Sept. 5.	1093	Steamship Petunia	do	50 00
.....	930	do Cacouna	do	44 00
Sept. 7.	1002	do Sunshine	do	48 00
do 7.	1123	do Edith	do	48 00
do 9.	1233	do Pencalenick	do	56 00
do 9.	959	do Garnet	do	46 00
do 12.	.....	do Edinburgh	do	50 00
do 12.	239	Schooner J. S. Parker	do	12 00
do 13.	195	do Jennie Parker	do	10 50

COLLECTIONS of Pilotage for the Year ended 31st December, 1893—*Concluded.*

Date.	Tons.	Vessel's Name.	Nationality.	Amount Paid.
				\$ cts.
1893.				
Sept. 14.	1182	Steamship Louisburg	British.	54 00
do 14.	1108	do Cape Breton	do	52 00
do 18.	939	do Cacouna	do	44 00
do 19.	1093	do Petunia	do	50 00
do 21.	657	Barquentine Canning	do	34 00
do 21.	1002	Steamship Sunshine	do	48 00
do 22.	1046	do Astrion	do	48 00
do 22.		Brigantine Alaska	do	28 00
do 26.		Steamship Bonavista	do	40 00
do 29.	1265	do Turret	do	58 00
do 30.	1108	do Cape Breton	do	52 00
Oct. 4.	939	do Cacouna	do	44 00
do 7.		Barquentine Thos. Faulkner	do	50 00
do 7.	1093	Steamship Petunia	do	50 00
do 7.	1046	do Astrion	do	48 00
do 9.	1002	do Sunshine	do	48 00
do 10.	161	do Coila	do	10 50
do 11.	1182	do Louisburg	do	54 00
do 12.		do Edinburgh	do	50 00
do 14.	689	do Coban	do	34 00
do 14.	939	do Cacouna	do	44 00
do 16.	174	Schooner North America	do	10 50
do 17.	1093	Steamship Petunia	do	50 00
do 20.	171	Brigantine Confederate	do	10 50
do 21.	1265	Steamship Turret	do	58 00
do 23.	1046	do Astrion	do	48 00
do 23.	183	Barquentine Nelly	do	14 00
do 23.	324	Brigantine Ohio	do	20 00
do 24.	278	Schooner Peerless	do	18 00
do 27.	930	Steamship Cacouna	do	44 00
do 27.	463	Bark Sidartha	do	13 00
do 27.	190	Barquentine Kate	do	7 00
do 30.	242	Schooner Canaria	do	16 00
do 31.	1093	Steamship Petunia	do	50 00
Nov. 1.	1108	do Cape Breton	do	52 00
do 1.	154	Schooner Carrie Eismor	do	10 50
do 2.	181	do Kate	do	3 00
do 2.	140	do Bonnibel	do	6 00
do 3.	250	Brigantine Aureola	do	13 50
do 4.	930	Steamship Cacouna	do	44 00
do 7.	529	Barquentine Alaska	do	21 00
do 9.	596	Steamship Acadian	do	30 00
do 9.		Barque Grandee	do	58 00
do 17.	298	Schooner Ulrica	do	9 00
do 21.	930	Steamship Cacouna	do	44 00
do 30.	293	do Windsor Lake	do	18 00
Dec. 6.	250	Barquentine Aureola	do	13 50
do 12.	311	Steamship Falcon	do	20 00
do 21.	293	do Windsor Lake	do	18 00
do 23.	136	Schooner Kezia	do	6 00
				5,689 00

CHARLES H. RIGBY,
Secretary.

GLACE BAY, C.B., 30th December, 1893.

Steamboat Inspection

APPENDIX No. 15.

REPORT OF THE PILOTAGE AUTHORITY OF LOUISBURG, N.S., FOR THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

LOUISBURG, C. B., 26th January, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.

DEAR SIR,—I have the honour to acknowledge the receipt of your letter of the 18th instant requesting the Pilotage Authority for this district to forward you their report. In reply I beg to say that the Board has not met yet to do business for the past two years, and in fact there was no business to transact as there were no vessels paying pilotage dues here. Again there is a vacancy on the Board caused by the death of Captain Angus Ferguson. As soon as the vacancy is filled, the Board shall organize and make a full report.

I have the honour to be, dear sir,
Your obedient servant,

(Signed) JAS. MCPHEE,
Secretary to Board of Commissioners for the District of Louisburg.

APPENDIX No. 16.

REPORT OF THE PILOTAGE AUTHORITY OF PARRSBORO', FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

PARRSBORO', N.S., 26th January, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—Inclosed I forward Parrsboro' pilotage returns. Your favour was received in due course.

I am, sir,
Your obedient servant,

STEPHEN R. DE WOLFE,
Secretary, Parrsboro' Pilotage Authority.

Parrsboro' Pilotage Returns for 1893 and down to 24th January, 1894.

Pilotage collected in 1894, namely :—

On 29 Canadian vessels.....	\$ 1,407 25
On 7 Norwegian vessels.....	347 00
On 3 German vessels.....	135 50
On 4 coal barges.....	42 00
<hr/>	
43	\$ 1,931 75
Fees on 7 pilot certificates in 1893, 35.00.....	245 00
do 1 do do Jan. 2nd, 1894.....	35 00
do 1 do do Jan. 18th, 1894.....	35 00
	<hr/>
	\$ 2,246 00

Amounts of Pilot Fund deposited in Dominion Government Savings Bank.....	\$ 405 89
Estimated interest to January 24th, 1894.....	8 00
In Treasurer's hands for deposit.....	56 36
	<hr/>
Total amount of Pilot Fund.....	\$ 470 25

Earnings by the licensed pilots acting.

Robert Anderson on 24 vessels and 1 barge.....	\$ 1,200 00
Haviland Pettis on 10 vessels and 3 barges.....	512 50
James George on 5 vessels.....	210 25
	<hr/>
	\$ 1,931 75

Pilot Commissioners.

Stephen R. DeWolfe, secretary and treasurer, Parrsboro'.
Angus McGilvray, chairman, Parrsboro'.
Edward Gillespie, Parrsboro'.
James E. Pettis, Port Greville.
Sidney Smith, Advocate Harbour.

S. R. DEWOLFE,
Secretary.

PARRSBORO', N.S., 24th January, 1894.

Steamboat Inspection.

APPENDIX No. 17.

REPORT OF THE PILOTAGE AUTHORITY OF PICTOU, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

Pictou, N.S., 2nd January, 1894.

Wm. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—Inclosed you will please find pilotage returns for this district for season ending 31st December, 1893.

I am, sir,

Your obedient servant,

W. H. NOONAN,
Secretary P.A., P.D.

LIST of Pilots—Port of Pictou, 1893.

No.	Name.	Residence.	Age.
1	Jas. Fraser	Boat Harbour.....	62
2	Bryant Rodgers.....	Pictou.....	58
3	Wm. A. Cooke.....	do.....	55
4	Angus McDonald.....	do.....	54
5	Hy. H. Powell.....	Boat Harbour.....	47
6	Chas. A. Cooke.....	Pictou.....	48
7	Geo. W. Powell.....	Pictou Landing.....	42
8	Daniel Smith.....	Pictou.....	42
9	Daniel McLeod.....	do.....	52
10	Angus Smith.....	do.....	36

A license also granted to Captain Amable Baquet, master of SS. "Miramichi."

RECEIPTS and Expenditures of all Moneys received by or on account of the Pilotage Authority in respect of Pilots or Pilotage.

RECEIPTS.	\$ cts.	\$ cts.
Received pilotage dues, as per statement.....	3,463 55	
do from 10 pilots, renewing bonds.....	10 00	
do Capt. Baquet, license.....	40 00	
Balance due secretary.....	99 47	
		3,613 02
EXPENDITURES.	\$ cts.	\$ cts.
Paid pilots for pilotage.....	3,233 55	
do Secretary's salary.....	200 00	
Balance due from 1892.....	179 47	
		3,613 02

J. A. GORDON,
A. J. PATTERSON,
JOHN R. DAVIES,
H. MCKENZIE,
Pilot Commrs., Port of Pictou, N.S.

PILOTAGE Dues for season ending 1893.

	\$ cts.	\$ cts.
Total amount received for pilotage dues for season ending 1893.....		3,463 55
Of this amount :—		
Received from steamships.....	2,863 55	
do sailing ships.....	600 00	3,463 55
Of this amount :—		
Received from British ships.....	2,318 55	
do Foreign do	1,145 00	3,463 55

Certified Master—A. Bacquet, ss. "Miramichi."

TOTAL Earnings of Pilots for season ending 1893.

No.	Name.	Amount.
		\$ cts.
2	James Frazer.....	65 00
3	Bryant Rodgers.....	97 00
4	Wm. A. Cooke.....	760 88
5	Angus McDonald.....	.....
6	Henry H. Powell.....	9 50
7	Chas. A. Cooke.....	602 50
8	Geo. W. Powell.....	85 00
9	Daniel Smith.....	879 98
10	Daniel McLeod.....	106 90
11	Angus Smith.....	626 79
	Total.....	3,233 55

Steamboat Inspection.

APPENDIX No. 18.

REPORT OF THE PILOTAGE AUTHORITY OF PUGWASH, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

PUGWASH, 29th January, 1894.

To the Minister of Marine and Fisheries,
Ottawa.

SIR,—I beg to inclose pilotage returns for the pilotage district of Pugwash, for the year 1893, which I trust you will find in order.

Your obedient servant,

H. C. BLACK,
Commissioner and Secretary.

PILOTS LICENSED.

Names.	Ages.	Numbers.
John Seaman.....	61	1
Joseph O'Read.....	39	2
Murdoch Nicholson.....	60	3
Neil McIver.....	34	4
Clarence E. Read.....	40	5
George M. Cooper.....	43	6

The above are all licensed pilots, there being no licensed apprentices.

The amount of pilotage collected on square rigged ships, all foreign, was \$372, and amount of schooners, &c., \$35. There is no pilotage fund, the amount being paid to each pilot as collected.

Respectfully submitted,

H. C. BLACK,
Commissioner and Secretary to Pilotage Authority.

APPENDIX No. 19.

REPORT OF THE PILOTAGE AUTHORITY OF SYDNEY, FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1893.

NORTH SYDNEY, C.B., 24th January, 1894.

WILLIAM SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.

SIR,—I beg to wait on you with returns for this pilotage authority for the year 1893, showing the sum of \$34.69 at the credit of the authority, and a further sum of \$600 on deposit at 4 per cent interest.

A meeting of the Board will be held shortly at which it will be proposed to make the charge against the pilots $7\frac{1}{2}$ per cent instead of 5 per cent as at present, as the revenue of the pilots is being largely increased by the diminution of their number, while the expenditure for relief is being largely increased.

Your obedient servant,

W. PURVES,
Secretary, Sydney Pilotage Authority.

ACCOUNT of Sydney Pilotage Authority.

DR.	\$ cts.	CR.	\$ cts.
To paid Pilot by collectors.....	15,303 50	By Total pilotage as per returns.....	15,929 60
Collectors.....	500 00	Licenses.....	81 00
Cr. relief fund.....	126 00	Boats.....	14 00
Office, rent and fuel.....	45 00	Masters' licenses.....	400 00
Commissioners, \$30 each.....	150 00	Relief fund.....	126 00
Books and printing.....	22 50	Balance last year.....	665 39
Telegrams and postages.....	13 25	Amount on deposit.....	300 00
Secretary and treasurer.....	150 00	Balance of interest.....	17 45
Relief fund.....	475 00		
Pilots extra.....	13 50		
Amount on deposit.....	600 00		
Balance carried down.....	134 69		
	17,533 44		17,533 44
		Balance brought down.....	134 69
		Amount on deposit.....	600 00
		Amount due pilotage authority	734 69

W. PURVES,
Secretary Sydney Pilotage Authority.

Steamboat Inspection.

STATEMENT of Relief bestowed in Pilotage District of Sydney, C.B., in the Year 1893.
SYDNEY.

Date.	Names.	Amount.	Date.	Names.	Amount.
1893.		\$ cts.	1893.		\$ cts.
May 17	Widow Brown	20 00	Sept. 17	Widow Petrie	10 00
do 27	do Mullins	10 00	do 21	do Young	20 00
do 27	do Daley	10 00	do 21	do Brown	10 00
June 6	Pilot Petrie	20 00	Nov. 15	do Brown	10 00
do 12	Widow McGinnis	20 00	do 15	do Petrie	10 00
do 17	do Madore	20 00	do 15	do Mullins	10 00
do 25	Pilot Curran	25 00	do 15	do McInnes	10 00
do 27	do Brown	25 00	do 27	do Madore	10 00
July 26	do Doyle	25 00	do 27	do Carroll	30 00
do 28	Widow Petrie	20 00	do 27	do Young	20 00
Sept. 4	Pilot Doyle	15 00	do 27	Pilot Curran	25 00
do 13	Widow Mullins	10 00	Dec. 9	do Petrie	10 00
do 14	Pilot Petrie	20 00	do 9	do Doyle	10 00
do 14	do Brown	25 00	do 9		
do 17	Widow Daley	20 00		Total	475 00

RECAPITULATION, 1893.

Ports.	Number of Vessels.	Tonnage.	Amount.
			\$ cts.
North Sydney	309	181,383	5,843 00
Victoria	108	107,237	3,154 00
International	95	115,483	3,809 00
Sydney	91	98,595	3,123 50
Total	603	502,698	15,929 50

MASTERS' LICENSES.

No.	Name.	Class.	Vessel.	Amount.
				\$ cts.
1	J. P. Angrove	Steamer	St. Pierre	40 00
2	D. Fraser	do	Coban	40 00
3	D. C. Fraser	do	Bonavista	40 00
4	J. McPhail	do	Cacouna	40 00
5	H. W. Gould	do	Louisburg	40 00
6	J. Reed	do	Cape Breton	40 00
7	J. Farquhar	do	Harlan	40 00
8	J. Couillard	do	Thames	40 00
9	J. Mylins	do	Arcadia	40 00
	S. Cunard & Co	Barges	2	40 00
	Total			400 00

STATEMENT of Arrivals paying Pilotage and Pilotage received in the District of Sydney,
C.B., during the year 1893.

SYDNEY MINES.

Class of Vessel.	Number.	Tonnage.
British steamers	71	85,446
Foreign do	2	2,879
British sailing vessels	15	8,261
Foreign do	1	539
Relief	2	1,453
Total tonnage	91	98,595
PILOTAGE RECEIVED.		
From British vessels		\$ 2,980 00
do Foreign do		115 00
do Relief		28 50
Total pilotage		\$ 3,123 50

INTERNATIONAL MINES.

British steamers	88	107,702
Foreign do	1	1,613
British sailing vessel	6	6,168
Total tonnage	95	115,483
PILOTAGE RECEIVED.		
From British vessels		\$ 3,751 00
do Foreign do		58 00
Total pilotage		\$ 3,809 00

VICTORIA MINES.

British steamers	75	79,073
Foreign do	5	3,789
British sailing vessels	24	3,655
Relief	4	750
Total tonnage	108	107,237
PILOTAGE RECEIVED.		
From British vessels		\$ 2,992 00
do Foreign do		142 00
do Relief		20 00
Total pilotage		\$ 3,154 00

NORTH SYDNEY.

British steamers	67	68,149
Foreign do	31	20,053
British sailing vessels	154	63,976
Foreign do	37	23,735
Relief	20	5,470
Total tonnage	309	181,383
PILOTAGE RECEIVED.		
From British vessels		\$ 4,450 50
do Foreign do		1,302 50
do Relief		90 00
Total pilotage		\$ 5,843 00

Steamboat Inspection.

NUMBER, Name and Age of every Pilot for the District of Cape Breton, for the year, 1893.

No.	Name.	Age.	No.	Name.	Age.
1	Con. Mullins	62	15	Lawrence Carroll	51
2	D. McGillvery	64	16	Jas. Carroll	37
3	W. Ratchford	56	17	Dan. Petrie	37
4	J. Carm	43	18	John McNeil	41
5	J. Mullins	43	19	Peter Burke	39
6	S. Shannahan	51	20	J. Shannahan	42
7	A. Ratchford	49	21	W. Brown	36
8	J. Fraser	53	22	T. Ratchford	38
9	J. McGillvery	43	23	G. D. Townsend	45
10	A. McNeil	50	24	J. B. McGillvery	47
11	H. McGillvery	63	25	L. Ling	44
12	J. D. McGillvery	47	26	Jas. Fraser	51
13	John Carroll	42	27	T. McNeil	33
14	George Brown	56	28	J. F. Laffin	35

PILOTAGE AUTHORITY OF SYDNEY.

NORTH SYDNEY, C.B., 29th January, 1893.

SIR,—Since writing you with returns on the 24th inst., I have been directed by the auditors to amend my account by including in it the total commission of 3 per cent deducted from amount paid by collectors to pilots, and total relief fund (say commission, \$789.05; relief, \$138.50), the pilots to return \$13.50 overpaid them. I am requested to allow full interest on \$600 for the year at 4 per cent, instead of interest from the time of change of deposit receipt.

I now return accounts amended accordingly by showing balance carried down, \$456.19, and a further sum of \$600 on deposit at 4 per cent to credit of the authority.

I am, sir, your obedient servant,

W. PURVES,
Secretary and Treasurer.

Wm. H. SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.

DR. ACCOUNT of Sydney Pilotage Authority, 1892. CR.

	\$ cts.			\$ cts.
By Total pilotage as per returns	15,929 50	Paid pilots by collectors	\$15,929.50	
Licenses	81 00	Less relief	\$ 138.50	
Boats	14 00	do commission,		
Masters' licenses	400 00	5 per cent	789.05	
Balance last year's account	665 39		927.55	
Amount do deposit	300 00	Paid 4 collectors		15,001 95
Interest 1 year, \$600 at 4 per cent.	24 00	do office rent and fuel		500 00
	17,413 89	do Commissioners expenses, \$30 each		150 00
Balance brought down	456 19	do books, printing and stationery		22 50
Amount on deposit	600 00	do telegrams and postage		13 25
		do secretary and treasurer		150 00
Amount due Pilotage Authority	1,056 19	do relief per statement		475 00
		Amount on deposit		600 00
		Balance carried down		456 19
				17,413 89

W. PURVES,
Secretary-Treasurer.

NORTH SYDNEY, C.B., 24th January, 1894.

APPENDIX No. 20.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF ST. MARY'S AND LISCOMBE FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

Date of Arrival.	Where from.	Rig.	Name of Vessel.	Port of Registry.	Registered Tonnage.	Name of Master.	Rate Inward.	Rate Outward.	Total.	Name of Pilot.
							\$ cts.	\$ cts.	\$ cts.	
1893.										
July 8	Halifax	Schr	Annie	Halifax	68	Capt. Leblanc	2 92	2 92	2 92	Edward Quinn, No. 1, St. Mary's.
do 8	do	do	Alma	do	65	do	2 60	2 60	2 60	
do 23	Liscombe	do	T. P. T.	do	41	J. Heustlin	1 64	1 64	3 28	
do 15	Boston	Tem Schr.	Hattie Turner	Boston	280	do	5 00	7 00	12 00	
Aug. 23	Liverpool, G. B.	Barq't.	Ricordo	Genoa, Italy.	473	do	10 00	2 day's detention \$1.50	13 00	
Sept. 4	Boston	do	Skibladner	Norway	381	do	9 00	11 00	20 00	
do 9	do	do	Gloster	do	333	do	8 00	10 00	18 00	
Oct. 21	do	Schr	Stephen Bennet.	Boston	231	do	5 00	6 00	11 00	
Nov. 21	Halifax	do	Hattie C.	St. John, N.B.	182	do	4 00	5 00	9 00	
do 21	do	do	Mattie B.	Halifax	32	do	1 28	1 28	2 56	
									94 36	
Oct. 1	Returned and taken out 2 tons	Barq't	Kibladner	Norway	381	C. Borrenson		11 00	11 00	John Burns, No. 2, St. Mary's.
Aug. 23	Liverpool	do	Ricordo	Genoa, Italy.	473	F. Massan			13 00	
									24 00	
	To pilotage on steam tug St. John, 45 trips at 3 cents per ton				47				126 90	Alfred McDaniel, No. 3.
May 2	Halifax	Barque	Race Horse	Norway	1,011	A. Annonson	16 00	18 00	34 00	Henry J. Pye, No. 1, Liscombe.

Steamboat Inspection.

Aug. 28 Sept. -	Sydney, C.B. - St. Mary's	Barque do	Victoria Ricordo	Liverpool, G.B. Genoa	721 473	Helgerson F. Massam	..... .....	15 00 12 00	15 00 12 00	27 00	} Daniel Lang, No. 2, Liscombe.
April 17	Liverpool, G.B.	Barque	Talisman	Yarm'th, N.S.	953	G. B. Bulmar	16 00	18 00	34 00		Charles Riley, No. 3, Liscombe.
April 17 Sept. -	Holland - Liverpool	Barque do	Whatiker Ricordo	Russia Genoa, Italy	942 473	T. Ekhlm F. Massam	10 00	17 00	27 00 *7 00	34 00	} Lewis Wilson, No. 4, Liscombe.
April 17	Holland	Barque	Whatiker	Russia	942	T. Ekhlm	15 00	.....	15 00		David Langile, No. 6, Liscombe.

WILLIAM PRIDE,
Secretary to Pilot Commissioners.

*Removing.

APPENDIX No. 21.

REPORT OF THE PILOTAGE AUTHORITY OF BATHURST, N.B., FOR
THE CALENDAR YEAR ENDING 31ST DECEMBER, 1893.

BATHURST, N.B., 31st December, 1893.

WM. SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.SIR,—I have the honour to herewith inclose you returns for the Pilotage District
of Bathurst, for season 1893.

Yours very truly,

J. W. STEWART,
Secretary.

Steamboat Inspection.

STATEMENT showing Number of Vessels, Collections and Disbursements, in Pilotage District of Bathurst, N.B., for the season of 1893.

PILOTS.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTAL AMOUNT.	RATES OF PILOTAGE PER FOOT.				DISBURSEMENTS.		
	Inwards.		Outwards.		Inwards.		Outwards.			Outside Bar.		Inside Bar.			To whom.	Amount.
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		Amt.	Amt.	Amt.	Amt.			
		\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.	\$ cts.	\$ cts.	\$ cts.			
Timothy Daly.....	4	47 40	4	30 00	13	152 20	13	186 20	\$ cts.	415 80	1 20	0 80	1 40	1 00	Timothy Daly.....	\$ 395 01
William Daly.....										36 00					William Daly.....	34 20
Nazaire Hachey.....					1	20 80	1	15 20		145 20					Nazaire Hachey.....	137 94
Frederick Reynolds..	2	12 00	2	6 00	5	55 20	5	72 00		597 00					Fred. Reynolds.....	7 85
Collected for boat licenses.....										12 00					Expenses.....	17 00
										609 00					Commissioners.....	17 00
															Secretary.....	609 00

J. W. STEWART,
Secretary.

K. F. BURNS,
JOHN E. O'BRIEN,
THOS. LEAHY,
SAML. MELANCON,
JOS. M. MACHEY, }
Commissioners.

APPENDIX No. 22.

REPORT OF THE PILOTAGE AUTHORITY OF BUCTOUCHE, N.B., FOR
THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

BUCTOUCHE, 24th January, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—In accordance with the provisions of the 24th section of the Act 36 Vict., chap. 54, respecting pilotage, I herewith transmit to you the pilotage returns for the District of Buctouche, N.B., for the year 1893.

As you will observe only one vessel over 80 tons, subject to payment of pilotage, visited this port during the year, shipments from here now being mainly in schooners under 10 tons.

Your obedient servant,

JOHN C. ROSS,
Secretary of Buctouche Pilotage Authority.

PILOTAGE RETURNS, District of Buctouche, for the year 1893. Act 36 Vict., chap. 54,
sec. 24.

1st. Names and ages of pilots licensed: John S. Dixon, age 61 years; Calixte Leger, age 61 years; Philip T. Landry, age 43 years.

2nd. The above named pilots are all licensed to undertake the pilotage of vessels of every description within and throughout the Pilotage District of Buctouche.

3rd. Pilotage dues are charged as per section 12 of rules and regulations for the district, viz: \$1.50 per foot draught of water, both inward and outward bound.

4th. Total amount of pilotage dues paid, \$36, and which was paid by 1 foreign (Norwegian) vessel, at the rate above stated, \$3 for moving included.

5th. The pilotage dues as above were paid to the pilot who performed his duty to the vessel as such.

6th. No new licenses were granted or expenses incurred during the year, and renewal for year of licenses for boats was dispensed with by the Pilotage Authority.

JOHN C. ROSS,
Secretary of Buctouche Pilotage Authority.

BUCTOUCHE, N.B., 24th January, 1894.

Steamboat Inspection.

APPENDIX No. 23.

REPORT OF THE PILOTAGE AUTHORITY OF CARAQUET, N.B., FOR THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

CARAQUET, N.B., 10th January, 1894.

To the Deputy Minister of Marine,
Ottawa.

SIR,—In accordance with your request, contained in your letter of 29th ultimo (11179), I beg to inclose statement of pilotage dues received, with statement of receipts and expenditure for the year.

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

PHILIP RIVE,
Secretary to Pilot Commissioners and Pilot Comr.

PILOTAGE DISTRICT OF CARAQUET.

STATEMENT of Pilotage during the year 1893.

Date of Arrival and Sailing.	Name of Vessel.	—	Name of Pilot.	Rate of Pilotage.	Amount Received.
					\$ cts.
1893.					
May 22..	Barqte. "Hibernica"	Inwards	Gervais Poulain.	\$1.20 per foot.	15 60
June 5..	do do	Outwards	Octave Aché.	\$1.00 do	9 50
July 18..	Schooner "Ulelia"	Inwards	No pilot.		
Oct. 4..	do do	Outwards	Théo. Geonet.	Above 60 tons	
Aug. 1..	do "Alabama"	Inwards	Charles Vibert.	and under 80..	9 00
do 3..	do do	Outwards	do	do	9 00
do 9..	do "Empress"	Inwards	Théo. Geonet.	\$1.20 per foot.	12 00
Sept. 16..	do do	Outwards	do	\$1.00 do	10 00
Aug. 10..	do "Red Gauntlet"	Inwards	do	Under 60 tons.	6 00
Sept. 18..	do do	Outwards	Xavier Poulain.	do	6 00
Aug. 16..	do "Flying Foam"	Inwards	Gervais Poulain.	\$1.20 per foot.	12 00
Oct. 6..	do do	Outwards	Théo. Geonet.	\$1.00 do	10 00
Aug. 17..	do "Ada"	Inwards	Charles Vibert.	\$1.20 do	13 20
Nov. 18..	do do	Outwards	Théo. Geonet.	\$1.00 do	10 00
Aug. 17..	do "Willing"	Inwards	do	\$1.20 do	12 00
Oct. 17..	do do	Outwards	do	\$1.00 do	10 00
do do	do do	Coasting.	Xavier Poulain.		20 00
Oct. 26..	"Barge Pride of the Channel"	Inwards	Gervais Poulain.	\$1.20 do	12 00
do 31..	do do	Outwards	do	\$1.00 do	11 00
Nov. 4..	"Schooner Ellen Mary"	Inwards	No pilot.		
do 6..	do do	Outwards	Gervais Poulain.	Under 80 tons.	9 00
Total					205

STATEMENT of Receipts and Expenditure of the District of Caraquet, for the year ending
31st December, 1893.

RECEIPTS.		\$ cts.
For renewal of boat licenses, Théo. Geonet.....		1 00
do do Octave Aché.....		1 00
do do Ger. Poulain.....		1 00
do do Charles Vibert.....		1 00
Pilot license to Xavier Poulain.....		4 00
		8 00
EXPENDITURE.		
To paid Philip Rive, secretary to pilot commissioners, salary.....		8 00

Steamboat Inspection.

APPENDIX No. 24.

REPORT OF THE PILOTAGE AUTHORITY OF THE DISTRICT OF
MIRAMICHI, FOR THE CALENDAR YEAR ENDED 31ST
DECEMBER, 1893.

OFFICE OF PILOT COMMISSIONERS,
NEWCASTLE, MIRAMICHI, N.B., 13th December, 1893.

WILLIAM SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—Inclosed herewith you will please find the pilotage returns of the Miramichi district, for the year ending 31st December, 1893.

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

R. R. CALL,
Secretary-Treasurer.

PILOTAGE returns for the Pilotage District of Miramichi, N.B., for the year ending
31st December, 1893.

Class of Vessel.	Number.	Total.
Vessels reported inwards—		
British steamers	21	
do sailing vessels	68	
Foreign steamers		
do sailing vessels	66	155
Vessels reported outwards—		
British steamers	21	
do sailing vessels	64	
Foreign steamers		
do sailing vessels	66	151
Vessels removed—		
British steamers	7	
do sailing vessels	20	
Foreign steamers		
do sailing vessels	38	65
Vessels extra services—		
British steamers	3	
do sailing vessels	8	
Foreign steamers		
do sailing vessels	7	18
Total amount of pilotage inward—		
	\$ cts.	\$ cts.
British steamers	964 25	
do sailing vessels	1,768 74	
Foreign steamers		
do sailing vessels	1,846 81	4,579 80
Total amount of pilotage outward—		
British steamers	676 50	
do sailing vessels	1,765 00	
Foreign steamers		
do sailing vessels	2,386 50	4,828 00
Total amount of renovals—		
British steamers	56 00	
do sailing vessels	114 50	
Foreign steamers		
do sailing vessels	289 00	459 50
Total amount for extra services—		
British steamers	12 00	
do sailing vessels	38 00	
Foreign steamers		
do sailing vessels	54 00	104 00

Steamboat Inspection.

RATES of Pilotage chargeable at Miramichi, N.B., on all vessels, British and Foreign,
for the year ending 31st December, 1893.

	\$ cts.
When inward bound.....	2 25 per foot.
And in addition to the above for all vessels propelled wholly or in part by steam.....	0 02 per ton.
When outward bound.....	2 00 per foot.
For every vessel taken to sea after the 1st day of November a bonus of.....	4 00
For the removal and mooring of vessels—	
Not exceeding 100 tons.....	1 50
do 200 do.....	2 00
do 300 do.....	3 00
Exceeding 300 tons.....	4 00
And when the distance of removal exceeds 4 miles 50 p. c. to be added to above rates	

NATIONALITY of vessels piloted inwards for the year ending 31st December, 1893.

Nationality.	Number.	Nationality.	Number.
British.....	89	German.....	1
Norwegian.....	39	French.....	1
Italian.....	9	Austro-Hungary.....	1
Austrian.....	8	Portugal.....	1
Russian.....	2		
American.....	2	Total.....	155
Swedish.....	2		

PILOTAGE returns for the District of Miramichi, N.B., for the year ending 31st
December, 1893.

No.	Name of Pilots.	Age.	For what service.	Remarks.
2	Louis Jimmo.....	39	Full license.....	
4	Angus McEachran.....	74	do.....	Pilot master.
5	Mitchell Martin.....	64	do.....	
6	Francis Martin.....	59	do.....	
7	Maxime Martin.....	48	do.....	
9	Angus McLean.....	60	do.....	
10	Alexander Wilson.....	47	do.....	
11	Robert J. Walls.....	42	do.....	
12	George Savoy.....	49	do.....	
13	Reuben Nowlan.....	49	do.....	
14	John McEachran.....	43	do.....	
15	Charles McLean.....	54	do.....	
20	Oliver Foster.....	52	do.....	
22	William Walls, sen.....	39	do.....	
23	William Tait.....	70	do.....	Leave of absence 1893 and since resigned.
26	John McCullam.....	41	do.....	
27	James Nowlan.....	42	do.....	
28	Dudley P. Walls.....	47	do.....	
29	George Sutton.....	42	do.....	
30	James A. Nowlan.....	38	do.....	
31	George T. Tait.....	36	do.....	Leave of absence 1893.
32	Joseph Jimmo.....	38	do.....	
33	James McCallum.....	49	do.....	
34	Allan McEachran.....	34	do.....	
35	John Martin.....	34	do.....	
36	Asa Walls.....	34	do.....	
37	William Walls, jun.....	36	do.....	
38	John Nowlan.....	37	do.....	
39	Patrick Nowlan.....	34	do.....	

List of Pilot Boats licensed.

No.	Name of Boats.	Tonnage.	Captains.	When first licensed.	When last licensed.
11	May Queen.....	22 50	Oliver Foster.....	May, 1878.....	May, 1893.
13	Two Brothers.....	25 00	James A. Nowlan.....	do 1878.....	do 1893.
14	Empress.....	25 57	John Martin.....	do 1878.....	do 1893.
15	Princess Louise.....	20 85	Robert J. Walls.....	do 1878.....	do 1893.

STATEMENT showing the yearly expenditure by the Pilots on account of Pilot Schooners during the past seven years.

Name of Schooners.	Paid by Pilots, 1887.	Paid by Pilots, 1888.	Paid by Pilots, 1889.	Paid by Pilots, 1890.	Paid by Pilots, 1891.	Paid by Pilots, 1892.	Paid by Pilots, 1893.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
May Queen.....	354 59	463 35	420 64	375 13	379 71	318 60	330 31
Two Brothers.....	454 77	474 36	504 90	423 60	432 39	404 17	371 85
Empress.....	356 08	379 71	434 38	465 93	473 48	505 37	385 20
Princess Louise.....	263 12	334 00	370 47	321 27	346 33	324 35	447 17
Totals.....	1,428 56	1,651 42	1,730 39	1,585 93	1,631 91	1,552 49	1,534 53

R. R. CALL,
Secretary-Treasurer.

J. C. MILLER,
Chairman.

Steamboat Inspection.

MIRAMICHI Pilots in account with R. R. Call, Secretary-Treasurer.

1893.		DR.	\$ cts.
Jan. 20.	To paid J. A. McMillan for minute book, \$2; lettering same, 50c.....		2 50
June 27.	do Théo. DesBrisay, ferriages due since 1892		3 00
do 27.	do Miramichi Steam Navigation Company, ferriages since 1893.....		3 00
July 27.	do James Henderson surveying four pilot boats.....		10 00
do 18.	do account Wm. Wilson & Co., sundries for pilot office		0 68
Aug. 18.	do Miramichi Steam Navigation Company for ferriage.....		3 00
do 18.	do D. P. Walls, to pay premium interest on seine.....		7 65
Sept. 18.	do Miramichi Steam Navigation Company, ferriages.....		3 00
do 18.	do Pilot master's expense sending pilot to Nelson on Sunday, and stationery for office.....		2 97
do 18.	do W. C. Anslow's account for printing, &c.....		10 75
do 18.	do J. Sadler, rent of store for seine.....		10 00
Oct. 18.	do R. J. Walls, expenses from Pictou.....		6 41
Nov. 18.	do D. MacLachlan, rent, pilot office		20 00
do 18.	do J. Martin, new boom for schooner "Empress"		4 25
do 18.	do D. P. Walls, balance due on seine.....		233 20
do 18.	do George Watt, pitchers for pilot office		0 50
do 18.	do D. G. Smith, for printing.....		4 50
do 18.	do pilot master, telegrams and postage.....		1 20
do 18.	do William Tait his share of pilot schooners.....		127 58
Dec. 1.	do Alex. Martin pension.....		100 00
do 1.	do returned to two pilots on account of seine		19 30
do 1.	do Mitchell Martin allowance for 12 days on steam dredge.....		6 00
do 1.	do Secretary-treasurer, postage, stationery, &c		2 73
do 1.	do do 3 per cent commission on \$11,102.71.....		333 08
do 11.	do 25 pilots at \$379.31, and 2 at \$352.33		10,187 41
			11,102 71
1893.		CR.	
Dec. 11.	By amount collected, pilotage inward.....		4,579 80
do 11.	do do do outward.....		4,828 00
do 11.	do do removals.....		459 50
do 11.	do do extra service.....		104 00
do 11.	do earned by bilots outside of pilotage.....		1,131 41
			11,102 71

R. R. CALL,
Secretary-Treasurer.

NEWCASTLE, N.B., 12th December, 1893.

APPENDIX No. 25.

REPORT OF THE PILOTAGE AUTHORITY FOR THE COUNTY OF CHARLOTTE, N.B., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

ST. ANDREW'S, N.B., 31st December, 1893.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I herewith inclose you pilotage returns for the district of the county of Charlotte, province of New Brunswick, for the past year.

I am, sir,
Your obedient servant,

C. E. O. HATHEWAY,
Commissioner and Secretary.

PILOTAGE returns for the District of the County of Charlotte, N.B., for the year ending 31st December, 1893.

Name of Pilot.	Age.	Residence.	District Licensed for.
Wellington Clein.....	52	West Isles.....	County of Charlotte.
Joseph Boyd.....	58	Campobello.....	do

PILOT Boats licensed.

Pilot schooner "Frederick Taylor," 12½ tons, Joseph Boyd, master.

LICENSES granted to Masters.

Name of Master.	Age.	Name of Vessel.	Tonnage.	Port of Registry.	District Licensed for.
John Hatfield.....	58	Brenton.....	159	Parrsborough...	Ports of St. Stephen and St. Andrew.
C. S. Howard.....	42	W. R. Huntley..	166	do ..	do do
Jos. H. Newcombe ..	38	Walleda.....	249	do ..	do do
Albert Bullernell...	30	Tacoma.....	209	do ..	do do
E. A. Warnock.....	26	Barge No. 4.....	439	do ..	do St. Andrew and St. George.
Thos. H. Bartlett...	54	do 3.....	431	do ..	do do St. Stephen.
Alonzo Heridon.....	51	do 2.....	433	do ..	Cancelled.
J. T. Sutler.....	45	do 2.....	433	do ..	Ports of St. Andrew and St. Stephen.
W. H. Howe.....	...	do 1.....	439	do ..	do do
W. H. Bell.....	55	do 5.....	443	do ..	do do

Steamboat Inspection.

AMOUNT of Pilotage collected by Pilots for the year ending 31st December, 1893.

Name of Pilot.	British Vessel.	Foreign Vessel.	Total.
	\$ cts.	\$ cts.	\$ cts.
Wellington Cline.....	153 25	129 50	.....
Joseph Boyd.....	239 00	77 00	.....
	392 25	206 50	598 75

Rates of Pilotage in the District.

- First longest pilotage distance inwards or outwards, \$2.25 per foot draught of water.
- Second do do \$1.60 do do
- Third do do \$1.50 do do
- From or to Campobello 20c. per foot less than above rate.
- Fourth pilotage distance inwards or outwards, \$1 per foot draught of water.
- From the 1st November to 1st April 20c. per foot in addition to above rates.
- To or from St. Andrew's Harbour to ballast ground : vessels under 300 tons, \$2.50 each ; 300 tons and upwards, \$3 each.
- Removing vessels from one loading place or harbour to any other loading place or harbour, inside St. Andrew's Bay : vessels up to 200 tons, \$4 each ; over 200 and up to 300 tons, \$5 each ; over 300 and up to 400 tons, \$6 each ; exceeding 400 tons, \$8 each.
- Removing a vessel from any loading place inside St. Andrew's Bay and within the county, to any harbour or loading place outside St. Andrew's Bay and within the county, pilotage inward and outward : vessels under 200 tons, \$6 ; 200 and under 300 tons, \$8 ; 300 and under 400 tons, \$10 ; 400 tons and upwards \$12 each.

C. E. O. HATHEWAY,
Commissioner and Secretary.

APPENDIX No. 26.

REPORT OF THE PILOTAGE AUTHORITY OF SHEDIAC, N.B., FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1893.

SHEDIAC, N.B., 26th January, 1893.

Hon. Sir C. H. TUPPER, K.C.M.G.,
Minister of Marine and Fisheries,
Ottawa.

DEAR SIR,—I beg leave to present the inclosed as the report of the Pilotage Commission of Shediac, N.B., for the year ending 31st December, 1893.

I also beg to notify you that I am now the secretary of the commission, having been elected to that position in the summer of 1893. Mr. Schaefer, who is obliged to be absent the greater portion of his time, having resigned.

Yours very truly,
W. A. RUSSELL.

Hon. Sir C. H. TUPPER, K.C.M.G.,
Minister of Marine and Fisheries,
Ottawa.

The Pilotage Authority of the port of Shediac, N.B., beg leave to submit the following report for the year ending 31st December, 1893.

The names and ages of all the pilots licensed for the year 1893 are as follows :—

Edward McDonald.....	Age 60 years.
Docity P. LeBlanc.....	do 53 do
Thomas McGrath.....	do 46 do
Olaf Hendrickson.....	do 38 do
Paul P. LeBlanc.....	do 47 do

And no others were licensed or acted under our authority.

The above named were licensed for pilotage service for the pilotage district.

The rates of pilotage dues for this district are as follows :—

Draught of water for vessels inward or outward bound \$1.25 per foot each, and for the removal of any vessel and seeing such vessel properly secured, \$2 for each such removal.

The total amount received for pilotage dues for the year 1893 are as follows :—

By Foreign ships.....	\$ 830 00
British do.....	30 00
Total.....	\$ 860 00

All paying the same rate of pilotage dues.

The above amount was all paid to the above named pilots.

Yours very truly,

W. A. RUSSELL,
Secretary to the Pilotage Commission of Shediac, N.B.

Steamboat Inspection

APPENDIX No. 27.

REPORT OF THE PILOTAGE AUTHORITY OF ST. JOHN, N.B., FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1893.

OFFICE OF PILOTAGE AUTHORITY,
DOMINION OF CANADA, DISTRICT OF ST. JOHN,
January 8th, 1893.

Wm. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—Inclosed please find the annual returns of pilotage for this district for the year ending 31st December, 1893, all of which I trust you will find in order.

I am, sir,
Your obedient servant

J. U. THOMAS,
Secretary St. John Pilotage Commission.

PILOTAGE AUTHORITY, DOMINION OF CANADA.
DISTRICT OF ST. JOHN, N.B., 31st December, 1893.

RECEIPTS and Expenditure for year ending this day.

RECEIPTS.	\$ cts.	\$ cts.
Licenses to 30 pilots at \$5.....	150 00	
do 5 boats at \$10.....	50 00	
25c. per foot on outward pilotage from Port of St. John, to date.....	1,977 21	
do do Port of Musquash, to date.....	18 75	
To balance.....		2,195 96
		498 74
		2,694 70
EXPENDITURE.	\$ cts.	\$ cts.
Pensions paid 6 pilots.....	1,150 00	
do 7 widows.....	500 00	
do 3 children.....	60 00	
Funeral expenses, Daniel Daley.....	20 00	
do James Murray.....	20 00	
Salary, secretary-treasurer, 1 year.....	800 00	
Office rent, 1 year to 1st November.....	100 00	
Auditor's fees for 1892.....	25 00	
Stationery, &c.....	19 70	
		2,694 70

RETURN of Vessels arriving at the Port of St. John, N.B., and paying pilotage, for the year ending 31st December, 1893.

Number.	Rig.	Total.
BRITISH.		\$ cts.
115	Schooners	
14	Brigs and brigantines.....	
36	Ships.....	
71	Barks and barkentines.....	
50	Steamers	
49	Barges.....	
335	Amount of pilotage received	16,799 46
FOREIGN.		
219	Schooners	
2	Brigs and brigantines..	
10	Ships.....	
30	Barks and barkentines	
4	Steamers.....	
265	Amount of pilotage received.....	9,094 37
TOTAL.		
334	Schooners	
16	Brigs and brigantines ..	
46	Ships.....	
101	Barks and barkentines	
54	Steamers.....	
49	Barges.....	
600	Amount of pilotage received.....	25,893 83

Steamboat Inspection.

PILOTS Licensed for Ports of St. John, N.B.

Name.	Age.	Residence.	Remarks.
Thomas Traynor.....	40	St. John, N.B.....	
Edward J. Fletcher.....	66	do.....	
Joseph Doherty.....	47	do.....	
John L. C. Sherrard.....	59	do.....	
James Doyle.....	57	do.....	
Henry Spears.....	42	do.....	
John Thomas.....	45	do.....	
James Murray.....	52	do.....	
Henry Thomas.....	62	do.....	
John Sproul.....	57	do.....	
Richard Scott.....	42	do.....	
Patrick Conlin.....	43	do.....	
James Reed.....	47	do.....	
John Spears.....	44	do.....	
Charles Daley.....	57	do.....	
Wm. Lahey.....	64	do.....	
Richard Cline.....	68	do.....	
James McPartland.....	59	do.....	
James S. Spears.....	48	do.....	
Thomas J. Stone.....	40	do.....	
James E. Mantle.....	47	do.....	
William Quinn.....	46	do.....	
William Miller.....	42	do.....	
Alfred Cline.....	36	do.....	
William Scott.....	37	do.....	
Bart. Rogers.....	36	do.....	
James Bennett.....	36	do.....	
Martin Spears.....	36	do.....	
Robert Thomas.....	52	do.....	
John McNulty.....	54	Musquash, N.B.....	Licensed for Musquash only.

RATES of pilotage in force 31st December, 1893, for the Pilotage District of St. John.

ON ALL SAILING VESSELS.

Inward—1st District.....	\$1 50	per foot draught of water.
2nd do.....	1 75	do do
3rd do.....	2 25	do do
Outward—To Partridge Island.....	1 25	do do
Down the Bay of Fundy (not compulsory).....	2 00	do do
Transporting—100 tons and under.....	\$1 50	
Over 100 and under 200 tons.....	2 00	
do 200 do 300 do.....	3 00	
do 300 do 400 do.....	4 00	

And 25 cents additional for every fifty tons such vessel shall measure over 400 tons.

ON ALL STEAMERS.

Inward—1st District.....	\$2 00	per foot draught of water.
2nd do.....	2 50	do do
3rd do.....	3 00	do do
Outward—To Partridge Island.....	1 75	do do
Down the Bay of Fundy (not compulsory).....	2 75	do do
Transporting—100 tons and under.....	\$2 00	
Over 100 and under 200 tons.....	2 50	
do 200 do 300 do.....	3 75	
do 300 do 400 do.....	5 00	

And 30 cents additional for every fifty tons such steamers shall measure over 400 tons.

St. JOHN Pilotage Commission General Account, on 31st December, 1893.

DR.	\$ cts.	\$ cts.
To balance 31st December, 1893—		
In Maritime Bank in liquidation.....	225 11	
In Bank of New Brunswick.....	2,362 80	
		2,587 91
Licenses—		
30 pilots, at \$5; 5 boats, at \$10		200 00
Pilotage—		
25 cents per foot on outward from St. John.....	1,977 21	
do do Musquash.....	18 75	
		1,995 96
Furness Line rebate account—		
Rebate from 20 steamers piloted by R. Cline.....		1,030 15
Interest account—		
On deposits, Dominion Savings Bank—		
12 months to 1st July, 1893, per pass book No. 744.....	122 39	
do do do No. 10260	151 86	
		274 25
Maritime Bank account—		
Dividend, 3 per cent on \$239.48.....		7 19
		6,095 46
CR.		
Pension account—		
Amount paid 6 pilots	1,150 00	
do 7 widows	500 00	
do 3 children	60 00	
		1,710 00
Expense account—		
Funeral expenses, Daniel Daley.....	20 00	
do James Murray	20 00	
Auditors' fees for 1892.....	25 00	
Stationery, &c.....	19 70	
Office rent, 1 year to 1st November	100 00	
Salary, secretary-treasurer, 1 year to date	800 00	
		984 70
Furness Line rebate account—		
Amount paid to 30 pilots, share and share alike.....		825 75
Investment account—		
Interest to credit in savings bank.....		274 25
Maritime Bank dividend—		
3 per cent on \$239.48 deposited in Bank of New Brunswick		7 19
Balance—		
In Bank of New Brunswick.....	2,075 65	
In Maritime Bank in liquidation	217 92	
		2,293 57
		6,095 46

STATEMENT of Finances of the St. John Pilotage Commissioners, as per audit, on 31st December, 1893.

INVESTMENT ACCOUNT.	\$ cts.	\$ cts.
On deposit, Dominion Savings Bank, per pass book No. 744.....	3,620 05	
do do do No. 10260	4,491 81	
		8,111 86
CURRENT ACCOUNT.		
In Maritime Bank in liquidation.....	217 92	
In Bank of New Brunswick.....	2,075 65	
		2,293 57
		10,405 43

Steamboat Inspection.

APPENDIX No. 28.

REPORT OF THE PILOTAGE AUTHORITY OF THE PORT OF CRAPAUD, P.E.I., FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1893.

VICTORIA, P.E.I., 1st February, 1894.

Wm. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to report herewith for the Pilotage District of the port of Crapaud for the year ending 31st December, 1893.

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

GEO. PALMER,
Master Mariner.

CRAPAUD License Pilotage District.

No.	Name of Pilot.	Age.	Service.	General Remarks.
2	Wesley Myers.....	47	To pilot vessels of all descriptions in ward and outward in said district.	On account of change of tonnage from 80 to 125, by Order in Council, has greatly decreased earnings.
3	J. S. Rogers.....	32		

PILOTAGE collected by pilots for the district of Crapaud.

		\$ cts.
5 British vessels inwards.....	276 tons.	10 00
7 do outwards.....	317 "	12 00
Total collected.....		22 00

APPENDIX No. 29.

REPORT OF THE PILOTAGE AUTHORITY OF A PORTION OF PRINCE COUNTY, P.E.I., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

PILOTAGE return for the district of a portion of Prince County, P.E.I., for the year ended 31st December, 1893.

<i>Pilot—JAMES L. RICHARDS.</i>			\$	cts.
Schooner Hope	(inward)	95 tons.	8	00
“ Toriton	(outward)	105 “	10	00
“ Valliant		86 “	15	00
“ Percie		76 “	2	00
“ Osprey	(inward)	99 “	8	00
Total.....			43	00
<i>Pilot—WILLIAM SKENY.</i>			\$	cts.
Steamer Coila		161 tons.	24	00
Schooner Hope		95 “	17	00
“ St. Ann		125 “	16	00
“ Puritan		94 “	16	00
“ Comrade		99 “	16	00
Total.....			89	00
<i>Pilots—CHARLES GALLANT AND GEORGE WELLS (JOINTLY).</i>			\$	cts.
Schooner Launce		88 tons.	11	06
“ Mary Culmer		207 “	22	25
“ Toriton	(inward)	105 “	10	00
“ Abana		86 “	17	60
“ Samuel Foot		80 “	14	00
“ Osprey	(outward)	99 “	10	00
“ Ceto		98 “	5	00
“ Mary P.		120 “	17	80
“ Maud Carter		92 “	16	00
“ Joseph McGill		99 “	16	00
“ Mary E. Leslie		99 “	16	00
“ Minnie D.		79 “	10	64
“ Hope	(outward)	95 “	8	00
“ Lois		66 “	2	00
“ Leopold		95 “	17	80
“ Elmo		95 “	8	00
“ W. D. Richards		97 “	16	00
Total.....			218	95
Total amount earned by pilots, all from British vessels.....			350	95

WILLIAM P. REID,
Chairman Pilot Commissioners.

ALBERTON, P.E.I., 4th January, 1894

Steamboat Inspection.

APPENDIX No. 30.

REPORT OF THE PILOTAGE AUTHORITY OF NANAIMO, B.C., FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1893.

NANAIMO, B.C., 4th January, 1894.

The Honourable

The Minister of Marine and Fisheries.

SIR,—I have the honour to forward, for the information of the government, the pilotage returns for the Nanaimo Pilotage Authority for the year ending 31st December, 1893, in accordance with the Pilotage Act, 1886.

I am, sir,

Your obedient servant,

C. C. MCKENZIE,

Acting Secretary.

NAMES and Ages of Pilots, &c.

Name.	Age.	Service.
John Sabiston, sen.....	67	District.
John Sabiston, jun.....	40	do
Daniel Morrison.....	53	do
James Peter Bendrodt.....	33	do
James Christensen.....	52	do

Rates of pilotage dues, &c. :—

Half pilotage.....\$ 1 00 per foot.

Full do.....2 00 do

Gulf do.....10 00 per diem.

Special rates for mail steamers.

Total amount received for pilotage dues, distinguishing amounts from British ships and from Foreign ships :—

Pilotage dues from British ships.....\$ 3,882 00

do Foreign ships.....16,702 50

Total pilotage dues.....\$20,584 50

RECEIPTS AND EXPENDITURE.

Receipts :—

Balance for 1892.....\$ 243 38

Receipts for 1893.....20,584 50

\$20,827 88

Expenditure :—

Amount paid pilots.....\$19,040 64

Expenses.....1,401 75

Balance on hand.....385 49

\$20,827 88

E. QUESNELL,

Chairman.

C. C. MCKENZIE,

Acting Secretary.

APPENDIX No. 31.

REPORT OF THE NEW WESTMINSTER AND YALE PILOTAGE AUTHORITY FOR THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

VANCOUVER, B.C., 5th January, 1894.

The Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—I have now the honour to submit to you the returns of the New Westminster and Yale Pilotage Authority for the year ended 31st December, 1893. You will, sir, notice that the returns on the whole are greater than those of last year, and will no doubt continue to increase from this on. My remarks on page 4 show you the exact difference between 1892 and 1893.

Our system is the same as that reported to you, sir, in 1891, and the by-laws are the same as approved by Order in Council, 20th September, 1890. You will also notice that, with the exception of the reserve fund carried over from 1892 with interest, all moneys in hand will be to-day distributed *pro rata* between our pilots. With the hope, sir, that your department will find everything I submit in order, and with the assurance that I have this day handed over to your marine representative, Capt. Gaudin, in this province, all my books and vouchers for inspection.

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

C. GARDINER JOHNSON,
Secretary New Westminster and Yale Pilotage Authority.

LEDGER BALANCE.

Folio 58, Bank of Montreal.....	\$ 1,161 31
do 184, do	\$ 509 78
Interest to 31st December, 1894.....	117 85
	527 63
	\$ 1,688 94
Folio 50, Commission account (over on commissions).....	\$ 145 01
do 95, Reserve fund (special).....	527 63
do 44, Pilotage earnings (over on last quarter).....	1,016 30
	\$ 1,688 94

C. GARDINER JOHNSON,
Secretary New Westminster and Yale Pilotage Authority.

VANCOUVER, B.C., 4th January, 1894.

Steamboat Inspection.

BALANCE SHEET FOR 1893.

Reserve fund.....	\$ 509 78
Interest to 31st December, 1893.....	17 85
Commission account.....	1,284 64
Fines	0 00
Surplus earnings for quarter ending 31st December, 1893....	1,016 30
	\$ 2,828 57
Expense account.....	\$ 1,139 63
Bank of Montreal (special).....	527 63
do (current).....	1,161 31
	\$ 2,828 57

C. GARDINER JOHNSON,
Secretary New Westminster and Yale Pilotage Authority.

VANCOUVER, B.C., 4th January, 1894.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING 31ST DEC., 1893.

Receipts.

Balance in bank.....	\$ 0 00
Pilotage earnings for year.....	12,720 25
Licenses	0 00
Fines.....	0 00
	\$ 12,720 25

Disbursements.

Paid pilots	\$ 7,988 55
Expense account, office.....	\$ 1,139 63
Pilot expense.....	2,430 76
	3,570 39
Balance in bank (to be divided amongst pilots, 5th January, 1894).....	1,161 31
	\$ 12,720 25

C. GARDINER JOHNSON,
Secretary New Westminster and Yale Pilotage Authority.

VANCOUVER, B.C., 4th January, 1894.

LICENSED PILOTS.

No. of License.	Class.	Name of Pilot.	Age.	Service.	Remarks.
1	1	W. Ettershank.....	51	Licensed to pilot vessels of any size or description within limits of district.....	Active.
2	1	W. W. Robertson.....	43	do do do ..	do
3	1	H. Robson Jones.....	38	do do do ..	do
4	3	W. Johnson.....	38	do do do ..	do

Pilotage dues now in force are the same as approved by Order in Council, 20th September, 1890.

PILOTAGE COLLECTED.

No.	Vessels.	Tons.	Amount.	Remarks.
			\$ cts.	
46	British vessels inward.....	87 726	2,128 00	27 British vessels inward less than 1892.
178	Foreign do	187 398	3,852 00	25 Foreign do more do
46	British vessels outward.....	92 113	2,479 00	2 British vessels outward less do
176	Foreign do	189 268	4,261 25	22 Foreign do more do
446	..... Total	556 505	12,720 25	

C. GARDINER JOHNSON,
Secretary New Westminster and Yale Pilotage Authority.

VANCOUVER, B.C., 4th January, 1894.

Steamboat Inspection.

APPENDIX No. 32.

REPORT OF THE PILOTAGE AUTHORITY OF VICTORIA AND ESQUIMALT FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1893.

PILOTAGE AUTHORITY,
VICTORIA, B.C., 8th January, 1894.

WM. SMITH, Esq.,
Deputy Minister Marine and Fisheries,
Ottawa.

SIR,—I have the honour to transmit herewith the pilotage returns for the Pilotage District of Victoria and Esquimalt, in the province of British Columbia, for the year ending 31st December, 1893, as required by section 22, chapter 80, of the Revised Statutes of Canada, 1886. I trust the same will reach you in good time to be embodied in your annual report to the government, and that I may be favoured with a copy when the said report is printed and distributed.

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

EDGAR CROW BAKER,
Secretary and Treasurer.

PILOTAGE returns, Victoria and Esquimalt Pilotage District, B.C., 1st January to 31st December, 1893.

LICENSED PILOTS.

No.	Name.	Age.	Date of Issue.	Seniority.	Remarks.
1	John Thompson.....	44	April 23, 1880..	Dec. 4, 1878	Originally a British Columbia pilot.
2	James Ramsey.....	63	Oct. 21, 1889..	June 9, 1873..	do do
3	S. W. Bucknam.....	43	March 6, 1891..	March 6, 1891..	Victoria and Esquimalt District.
4	John Newby.....	44	April 10, 1891..	April 10, 1891..	do do
5	Thos. Bebbington...	47	Feb. 25, 1893..	Feb. 25, 1893..	Originally a New Westminster and Yale pilot.

N.B.—The foregoing is a list of licensed pilots who are the only ones who have prosecuted such calling in the above named district.

There are no masters and mates acting under license from this pilotage authority, all the certificates previously granted having expired by efflux of time.

Clauses I, II, III, page 213, supplement to the 19th annual report, with reductions on pages 200 and 201, supplement to 21st annual report, apply to this year also, with the following further reductions.—10th April, 1893; Order in Council, 1st July, 1893:—

Subsections *j* and *k* of section 18 of the amended by-laws, 1880, have been amended as follows, viz.:—“To the outer wharfs of Victoria harbour, on all regular line ocean steamships carrying mails and (or) freight and (or) passengers, on the inward voyage the rate to be \$1 per foot in and \$1 per foot out; and upon all such vessels on the outward voyage (*i. e.*, after returning from terminal port in British Columbia or Puget Sound), provided they have called at the port of Victoria on their inward voyage, the rate to

be 50 cents per foot in and 50 cents per foot out; but if they have not called at said port on the inward voyage then the whole rate of \$1 per foot is to be charged.

Same Acts and parts of Acts as last year apply to 1893, and list of exempted vessels and Puget Sound rates remain the same.

EDGAR CROW BAKER,
Secretary and Treasurer.

VICTORIA, B.C., 31st December, 1893.

PILOTAGE Dues collected, 1st January to 31st December, 1893.

Month.	British.	Foreign.	Total.	Remarks.
	\$ cts.	\$ cts.	\$ cts.	
January	374 25	524 85	899 10	} N.B.—The total \$11,516.43 does not include a sum of \$121 collected from the Puget Sound steamers, or \$136.50 collected from various American vessels for half pilotage outwards.
February	344 60	396 75	741 35	
March	400 62	450 50	851 12	
April	497 00	721 12	1,218 12	
May	342 33	696 67	1,039 00	
June	337 87	874 25	1,212 12	
July	501 37	743 75	1,245 12	
August	375 50	641 75	1,017 25	
September	334 50	529 25	863 75	
October	272 00	573 75	845 75	
November	382 25	479 25	861 50	
December	350 25	372 00	722 25	
	4,512 54	7,003 89	11,516 43	

EDGAR CROW BAKER,
Secretary-Treasurer.

VICTORIA, B.C., 31st December, 1893.

Steamboat Inspection

DE Cr.
Receipts and Expenditure, 1st January to 31st December, 1893.

Date.	Nature of Receipt.	Amount.	Date.	Head of Service.	Amount.
1893.		\$ cts.	1893.		\$ cts.
Jan. 1	To Balance from last year	483 24	Jan. 1 to Dec. 31	By British Columbia Pilots' Division, surplus 1892	483 24
do 1 to Dec. 31	Pilotage dues under Clause IV	11,516 43	do 1 to Dec. 31	do do earnings as per receipts	10,364 79
do 1 do 31	American steamers, half pilotage, outwards, as per cash book	136 50	do 1 do 31	Board of Examiners, 12 months	300 00
do 1 do 31	Steamer "Sehome," Puget Sound steamer, two trips	21 00	do 1 do 31	Office expenses—examination fees	60 00
do 1 do 31	Certificate fees, Puget Sound steamers	100 00	do 1 do 31	Office expenses—rent, fuel, light, &c.	357 15
do 1 do 31	Examination fees, 3 in number	60 00	do 1 do 31	Secretary-treasurer, 12 months' salary	600 00
do 1 do 31	License fees, 1 in number	25 00	do 1 do 31	Balance at credit of pilotage authority	176 99
		12,342 17			12,342 17

Approved and certified correct,
 R. P. RITHEE, }
 ROBT. WARD, } *Commissioners.*
 THOS. B. HALL, }

EDGAR CROW BAKER,
Secretary-Treasurer.

APPENDIX No. 33.

REPORT OF THE PORT WARDEN, MONTREAL, FOR THE CALENDAR
YEAR ENDED 31st DECEMBER, 1893.

MONTREAL, 9th January, 1894.

The Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour, by direction of the Council of this Board, and in compliance with section 31 of the Act governing the Port Warden office, 45 Vic., chap. 45, to transmit herewith documents as follows :—

1. The Port Warden's Report for the year 1893.
2. Audited statement of receipts and expenditure of the Port Warden office for the year ended 31st December, 1893.
3. Statement of investments of the Port Warden surplus fund.

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

GEO. HADRILL,
Secretary.

Steamboat Inspection.

PORT WARDEN'S OFFICE.

Dr.

STATEMENT of Receipts and Expenditure, for the year ended 31st December, 1893.

Cr.

	1892.	1893.	1893.	\$ cts.	\$ cts.	\$ cts.
Dec. 31. To Balance, cash in bank				7,632 02		
do do Port Warden's hands			8,103 70	471 68		
1893						
Dec. 30. Receipts derived as under—						
7,461,017 bushels wheat						1,233 28
1,898,289 do peas						1,255 52
310,110 do rye and barley						1,300 00
3,062,052 do oats						1,200 00
9,834,280 do corn						520 00
3,185 tons oil cake						80 00
1,999 do minerals						300 00
647,484 barrels flour						100 00
1,114 do ashes						100 00
59,808 do apples						1,000 00
83,045 oxen and horses						513 94
3,764 sheep and hogs						32 85
98,774 tons sundries at 3c.						111 15
3,360 do do						52 90
57,648 tons hay						12 00
5,175 do phosphates						101 30
192,097,979 feet lumber						60 00
Port Warden's fees, inwards						7,972 94
do outwards						7,000 00
Special surveys						35 73
Damaged cargo certificates						3,182 42
Interest on deposits in Montreal City and District Savings Bank						1,182 19
Cash from Treasurer, Board of Trade						190 36
Interest on investments						4,554 97
Jan. 1. To Balance						19,563 64
						4,554 97

Audited and found correct,
 ALF. W. HADRILL, Auditor.

E. & O. E.

ARCHIBALD REID,
 Port Warden.

MONTREAL, 5th January, 1894.

OFFICE OF THE PORT WARDEN,
MONTREAL, 30th December, 1893.

To the Chairman and Members of the
Board of Examiners for the Office of
Port Warden.

GENTLEMEN,—I have the honour to submit the annual report of the business of this office, with statement of receipts and expenditure for the past year.

Navigation opened by the arrival from sea of the ss. "Pickhuben," at 2 p.m. on the 3rd May, and closed with the departure for sea of the ss. "State of Alabama," on the 3rd November.

The first sailing vessel to arrive was the barque "Peacemaker," on the 19th May, and the first vessel to enter the gulf by the Straits of Belle Isle was the ss. "Nether Hoime," on the 23rd June.

Four hundred and thirty-three vessels of all kinds were entered at this office, with a tonnage of 836,931 tons, being eleven vessels and 48,231 tons over the arrivals of last year.

There has been an increase of steamships by twenty-two vessels and 57,451 tons, and a decrease in sailing vessels of eleven vessels and 11,220 tons.

There have been several mishaps to inward bound vessels, but the only one we have to record to outward bound vessels was that of the ss. "Lake Nipegon," which was pierced by ice in the Straits of Belle Isle. She was beached in Forteau Bay, temporarily repaired, brought back to port, and after overhaul and slight repairs proceeded on her voyage.

The importance of dry dock facilities, by the lack of which this port greatly suffers, was strongly exemplified by having to take the ss. "Wandrahm" to the port of New York for repairs.

The shipments of various kinds for the past season were as follows:—

Increase.	1892.	Description.	1893.	Decrease.
7,944,730	1,889,550	Corn bush.	9,834,280	
46,694	10,952	Hay tons.	57,646	
1,841	1,344	Oil cake "	3,185	
856	1,143	Minerals "	1,999	
	8,817,604	Wheat bush.	7,461,017	1,356,587
	2,247,742	Peas "	1,898,289	349,453
	4,743,341	Oats "	3,062,052	1,681,289
	801,762	Rye and barley "	310,110	491,652
	817,055	Flour brls.	647,484	169,571
	1,438	Ashes "	1,114	324
	103,800	Sundries tons.	98,766	5,034
	100,352	Cattle and horses heads.	83,045	17,307
	17,162	Sheep and hogs "	3,764	13,398
	433,119	Apples brls.	59,808	373,311
	8,202	Phosphate tons.	5,175	3,027
	5,793	Lumber "	3,208	2,585
	172,702,025	" feet.	132,097,979	40,604,046

The revenue of this office for the past year is \$9,035.49, against \$9,463.11 in 1892, a decrease of \$427.62.

By the foregoing you will note a great falling off in the majority of articles of shipment, notably and to a serious extent in the shipment of lumber, apples and cattle, to which is attributed the decrease in the revenue of this office, only partially compensated for by increase in the shipments of hay.

There was, however, a very large increase in the shipments of corn over 1892, viz., 7,944,730 bushels, but this does not contribute any revenue to the office.

On the 12th of August last Mr. J. G. Shaw resigned his position as Port Warden, and your subscriber was appointed to succeed him.

Steamboat Inspection.

The Council of the Board of Trade, at a meeting held on the 8th November, placed Capt. J. A. Vibert, who was appointed a Deputy Port Warden on the 28th March, 1893, on the same footing with respect to salary as other Deputy Port Wardens; and appointed Captain Alex. J. Crighton a Deputy Port Warden, such appointment to take effect on the 1st April, 1894.

Since my accession to the office of Port Warden everything has gone on harmoniously, and I trust with satisfaction to yourselves and the shipping community.

I am, gentlemen,
Your obedient servant,

ARCHIBALD REID,
Port Warden.

STATEMENT of the investment of the surplus funds of the Port Warden's Office at Montreal, and of interest accruing therefrom, during the year ended 31st December, 1893.

Date.	Investments.	Amount.	Interest.
Feb. 16, 1880	Expended \$2,380.34 in purchase of Dominion Government stock	\$ 2,300 at 4 p. c. for 12 mos.	\$ cts. 92 00
Aug. 16, 1880	Expended \$7,254.11 in purchase of City of Montreal registered stock	\$ 7,000 at 5 do ..	350 00
April 18, 1884	Expended \$5,031.34 in purchase of City of Montreal 4 per cent registered stock, Nos. 1720, 1721, 1722, 1723, 1724—5 at \$1,000.....	\$ 5,000 at 4 do ..	200 00
Mar. 14, 1887	Expended \$10,320.75 in purchase of City of Montreal Consolidated Fund Stock, Class C—100 shares of \$100 each.	\$10,000 at 4 do ..	400 00
Oct. 15, 1890	Temporary Loans to Board of Trade Building Fund..	\$ 5,000 at 5 do ..	} 1,150 00
Nov. 18, 1891	do do do ..	\$ 8,000 at 5 do ..	
Aug. 10, 1892	do do do ..	\$10,000 at 5 do ..	
Nov. 14, 1893	do do do ..	\$ 5,000 at 5 p. c. from date effected to 31st Dec., 1893. ..	
Dec. 31, 1893	do do do ..	\$ 2,000	32 19
	Total	\$54,300 Interest for 12 mca.	2,224 19

EDGAR JUDGE,
Treasurer.

GEO. HADRILL,
Secretary.

MONTREAL, 9th January, 1894

APPENDIX No. 34.

REPORT OF THE PORT WARDEN AT QUEBEC FOR THE CALENDAR
YEAR ENDED 31ST DECEMBER, 1893.PORT WARDEN'S OFFICE,
QUEBEC, 2nd December, 1893.WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

DEAR SIR,—As required by the 30th clause of the Port Warden's rules, I beg respectfully to send you a report and statement of the business transacted in this office during the year 1893. It also takes in the different wrecks and casualties that have taken place in the Gulf and River St. Lawrence during the same period that do not come under this office.

I am, sir,
Your obedient servant,W. SIMONS,
*Port Warden.*PORT WARDEN'S OFFICE,
QUEBEC, 1st December, 1893.WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—As required by the 30th section of the Port Warden's rules, I beg respectfully to submit the following copy of annual statement of the business transacted in this office during the year ended 31st December, 1893, as follows:—

Forty-nine steamers were surveyed for clearance outward, after taking on board part cargo at this port, having previously loaded part cargo of grain at Montreal.

Five steamers and thirteen sailing vessels had their hatches and cargoes surveyed by the request of the captain or agent on their arrival from sea.

Seven steamers and one sailing vessel were surveyed for damage by collision.

Three steamers and three sailing vessels were surveyed after stranding.

Four steamers and four sailing vessels were surveyed for valuation.

A wharf was surveyed after having been run into.

Three surveys were held on goods landed in a damaged condition.

One steamer was surveyed, having been damaged by ice.

A steamer was surveyed, having received slight damage while loading timber.

The receipts and expenses of this office were as follows:—

Receipts from all sources	\$ 925 00
Expenses of office	305 00
	<hr/>
Balance net receipts	\$ 620 00
	<hr/> <hr/>

Steamboat Inspection.

Besides which there were several vessels damaged by stranding or otherwise that did not come under the Port Wardens' rules, but were repaired or condemned after survey.

Norwegian barque "White Rose," damage to stern in port.

Norwegian barque "Columba" damaged on ballast ground.

Norwegian barque "Magnolia," stranded at Manicouagan, came to Quebec and repaired and afterwards became a total wreck while loading at Bersimis.

Norwegian barque "Reciprocity," sprung a leak in the gulf and put into St. George's Bay, Nfld., was towed to Halifax and repaired.

Norwegian barque "Arizona," sprung her bowsprit and repaired.

Norwegian barque "Kings County," broke her rudder and fore rigging; rudder stock and rigging renewed.

Norwegian barque "Otto and Antoine," total wreck on Magdalen Islands.

Norwegian barque "Premier," dismasted at Metis; was brought to Quebec and condemned.

Norwegian barque "Frederikstad," total wreck while loading at Pabos Mills, Chaleurs Bay.

Norwegian barque "Napoleon," put into Gaspé leaking; came to Quebec and was condemned.

English barque "Beatrice," total wreck on Magdalen Islands.

English barque "Prince Rupert," dismasted at Cape Chatte while loading; was brought to Quebec and condemned.

English barque "Ruby," total wreck on Anticosti.

English barque "Cambria," grounded in Lake St. Peter; was docked at Quebec; no damage.

English ss. "Lake Nipegon," damaged by ice in Straits of Belle Isle, proceeded to Montreal.

The whole respectfully submitted by your humble and obedient servant,

W. SIMONS, N.A.

Port Warden.

APPENDIX No. 35.

REPORT OF THE PORT WARDEN AT RIMOUSKI, QUE., FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1893.

RIMOUSKI, 27th January, 1894.

The Honourable
The Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to inform you that I have not visited any vessel nor collected any fees during the year ended 31st December, 1893.

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

ELZEAR HEPPELL,
Port Warden.

Steamboat Inspection.

APPENDIX No. 36.

REPORT OF THE PORT WARDEN AT ANNAPOLIS, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

ANNAPOLIS, N.S., 24th January, 1894.

Wm. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I had the honour to receive yours the 19th inst., requesting me to send you a report of the receipts and expenses of the Port Warden's office at Annapolis. There is a large quantity of lumber shipped at this port, but all vessels chartered to load at this port, if they get damaged on passage, run into some other port for repairs. There is no dock or blocks at this port for repairing vessels.

There is no call for a Port Warden here. I have been requested but once in two years to discharge the duties of Port Warden.

On 21st October, 1893, ss. "City of Monticella" was lying at end of railroad and was run into and damaged by schooner "Donald." Came in tow of tug "Pinnafore," Capt. King. Was requested by Capt. Fleming to hold survey on hull of said steamer. Found steamer damaged about its after gangway. Estimated damage at \$95. Cost of survey, \$18. I paid Capt. Pickles \$5, John Wagstaff, ship carpenter, \$5 for their time on survey.

I hope this statement will be all that is required.

I am, sir,
Your obedient servant,

SIMON RILEY,
Port Warden.

PORT WARDEN'S OFFICE,
ANNAPOLIS, N.S., 31st December, 1893.

SIMON RILEY, Port Warden, in account with the Department of Marine and Fisheries.

		\$ cts.
1893.		
Oct. 24...	Received from Smith Carter for survey on ss. "City of Monticella".....	18 00

APPENDIX No. 37.

REPORT OF THE PORT WARDEN AT HALIFAX, N.S., FOR THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

HALIFAX, N.S., 5th January, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit my report for the year ending 31st December, 1893, accompanied by a statement of the receipts and expenditure during that period.

Surveys have been held by me on twenty-five steamers and twenty-one sailing vessels which arrived in a damaged condition during the year.

The ss. "Havana," which was towed to this port on the 11th June, having been ashore on the west coast of Newfoundland, is still lying in this harbour without any repairs having been made to her. One steamer is still in port undergoing repairs. The other steamers received the necessary repairs and all of them bound to other ports with their cargoes have arrived safely at their destination.

I have the honour to be, sir,
Your most obedient servant

DAVID HUNTER,
Port Warden.

RECEIPTS and Expenditure of the Port Warden, Halifax, N.S., from 1st January to 31st December, 1893.

DR.	\$ cts.	CR.	\$ cts.
To amount of fees paid.....	2,363 11	By paid assistants, office expenses, &c....	1,283 64
		Amount reverting to Port Warden..	1,079 47
	2,363 11		2,363 11

I hereby certify that the above is a true and correct statement of the receipts and expenditure of the Port Warden at Halifax, N.S., during the year 1893.

DAVID HUNTER,
Port Warden.

Examined, compared with books and vouchers and found correct.

H. W. JOHNSTON,
Agent, M. and F. Dept.

Steamboat Inspection.

APPENDIX No. 38.

REPORT OF THE PORT WARDEN OF NORTH SYDNEY, C.B., FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1893.

PORT WARDEN'S OFFICE,
NORTH SYDNEY, C.B., 19th January, 1894.

W.M. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to report as follows :—
During the past season I have held the following surveys : On 4 steamships and
12 sailing vessels.
The above arrivals were principally vessels in a damaged condition requiring
repairs.

The total fees received were.....	\$ 179 50
Paid assistants.....	52 50
	<hr/>
	\$127 00
Office expenses	50 00
	<hr/>
Net fees received	<u>\$ 77 00</u>

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

DANIEL McKAY,
Port Warden.

APPENDIX No. 39.

REPORT OF THE PORT WARDEN AT PICTOU, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

Pictou, N.S., 2nd January, 1894.

The Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to herewith submit my annual report as Port Warden of this port for the year ending 31st December, 1893.

Amount of fees received for nineteen surveys.....	\$ 171 00
Less paid assistants	\$25 00
Office expenses.....	20 00
	45 00
Net revenue.....	\$ 126 00

Respectfully submitted,

DANIEL McDONALD.

Sworn before me, at Pictou, this 2nd }
day of January, 1894. }

Wm. McLAREN, J.P.

Steamboat Inspection.

APPENDIX No. 40.

REPORT OF THE PORT WARDEN AT PORT HASTINGS, N.S., FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1893.

PORT HASTINGS, C.B., 1st February, 1894.

The Deputy Minister of Marine and Fisheries,
Ottawa.

DEAR SIR,—I beg to say that I have no report to make for the year 1893. I don't have anything to do with vessels coming to the marine slip, and there was none stranded around here during the year that required the services of a Port Warden.

Your obedient servant,

HUGH McMILLAN.

APPENDIX No. 41.

REPORT OF THE PORT WARDEN AT PORT HAWKESBURY, N.S., FOR
THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

PORT HAWKESBURY, N.S., 31st December, 1893.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report of the doings of this office, accompanied with a statement of fees collected by me, during the year just closed.

Please find a list of names of vessels which have been repaired, under Port Warden survey, at this port since my last annual report dated 31st December, 1892.

I have much pleasure in stating that the three vessels surveyed here have been thoroughly repaired here and arrived safely at their ports of destination.

I have the honour to be, sir,
Your most obedient servant,

D. W. HENESSY,
Port Warden.

RECEIPTS and Expenditure of the Port Warden's Office at Port Hawkesbury, for the
year ended 31st December, 1893.

1893.	Receipts.	\$ cts.	Expenditure.	\$ cts.
Aug. 5..	Survey held on brig "Aquila" in stream.....	8 00	.....	.....
do 10..	do do on the railway	15 00	Paid assistants.....	10 00
do 20..	Final survey on brig when repaired.	5 00	.....	.....
Sept. 6..	Survey held on tern schooner "Herbert E".....	8 00	.....	.....
do 16..	Survey on valuation of vessel for average.....	7 50	.....	.....
do 16..	Final survey after repairs on railway.....	5 00	.....	.....
do 16..	Two surveys on tern schooner "Beaver" in slip...	13 00	.....	.....
		61 50	Total.....	10 00
		10 00		
	Amount reverting to Port Warden.....	51 50		

I do hereby certify that the above amount is a full and true account of all money paid to me as Port Warden's fees for the year ended 31st December, 1893.

D. W. HENESSY,
Port Warden.

PORT HAWKESBURY, 31st December, 1893.

Steamboat Inspection.

Report of Surveys held on Damaged Vessels by Port Warden at Port Hawkesbury in 1893.

Date.	Vessel's Name.	Rig.	Where From.	Where Bound.	Port of Registry.	Cargo.	Master's Name.	Remarks.
1893. Aug. 5.	Aquila	Brigant'ne	Boston	Georgetown	Charlottetown	Ballast	Wm. Senebough	Aquila was stranded near Seal Islands, N.S., her main keel badly damaged and several of her planks chafed and bruised; she was thoroughly repaired here on the railway and proceeded to her port of destination.
Sept. 6.	Herbert E.	Tern schr.	Port Bevis, C. B.	Chester, U.S.A.	Boston	Rock plaster.	Wm. Howes	Herbert E. damaged by stress of weather whilst on a voyage from Port Bevis, C. B., to Chester; discharged cargo here and was thoroughly repaired and strengthened, and reshipped cargo and proceeded on her voyage.
do 16.	Beaver	do	New York	Cape Canso	St. John, N.B.	Hard coal.	George Imlay	Was stranded near Canso; had her keel and stern badly damaged, rudder braces broken, windlasses damaged, lost one anchor and chain; repairs made here and proceeded to Mabou and loaded rock plaster for Philadelphia.

PORT WARDEN'S OFFICE,
PORT HAWKESBURY, December 30th, 1893.

APPENDIX No. 42.

REPORT of the Port Warden at Port Mulgrave, N.S., for the Calendar Year ended 31st December, 1893.

1893.		\$ cts.	\$ cts.
Jan. 8....	Held Port Warden's survey on ss. "Marion"		8 00
	Assisted by Henry A. Hadley, ship carpenter	5 00	
Aug. 23....	Held Port Warden's survey on schooner "Lamode"		8 00
	Assisted by James Hyland, ship carpenter	5 00	
do 24....	Held Port Warden's survey on schooner "Hydra"		8 00
	Assisted by William Remi and Richard Palmer	10 00	
Oct. 24....	Held Port Warden's survey on barquentine "Argentine"		8 00
	Assisted by John Keating and Bryant Rodgers	10 00	
		30 00	32 00

G. B. HADLEY,

Port Warden.

PORT MULGRAVE, 22nd January, 1894.

Steamboat Inspection.

APPENDIX No. 43.

REPORT OF THE PORT WARDEN FOR PORT OF SYDNEY, C.B., FOR THE CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

PORT WARDEN'S OFFICE
SYDNEY, 31st December, 1893.

HON. SIR CHARLES HIBBERT TUPPER,
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit a report of the transactions in connection with the office of Port Warden at Sydney, C.B., ending the past year.

I have the honour to be, sir,
Your most obedient servant,

JOHN LORWAY,
Port Warden.

RECEIPTS and Expenditure of the Port Warden, Sydney, C.B., from 31st December, 1892, to 31st December, 1893.

	Amount.		Amount.
	\$ cts.		\$ cts.
For surveys on steamers for bunker coals	344 00	By fees paid assistants.	142 00
Surveys on cargoes and hulls.	69 00	Stationery.	10 00
		By amount reverting to Port Warden.	152 00
	413 00		261 00
			413 00

I hereby certify that the above is a true and correct statement.

JOHN LORWAY,
Port Warden.

SYDNEY, C.B., 31st December, 1893.

APPENDIX No. 44.

REPORT OF THE PORT WARDEN OF SOUTH BAR, N.S., FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1893.

SOUTH BAR, N.S., 22nd January, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.SIR,—I have the honour to submit my report of the business of this office for the
past year.Surveys held on nineteen steamships at \$18.....\$ 152 00I remain,
Your obedient servant,Y. H. BARRINGTON,
Port Warden.

Steamboat Inspection.

APPENDIX No. 45.

REPORT OF THE PORT WARDEN AT YARMOUTH, N.S., FOR THE
CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

YARMOUTH, N.S., 24th January, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour of making my report as Port Warden for Yarmouth, N.S.,
for the year ended 31st December, 1893.

I have been called on twelve times to hold surveys on hatches and vessels partially
disabled.

Fees collected amounted to.....	\$ 93 00
I have paid out for assistants.....	25 00
Net amount.....	<u>\$ 68 00</u>

I am, sir,
Your obedient servant,

EBEN SCOTT,
Port Warden.

The within named Eben Scott came before }
me and made affidavit that the above }
statement was correct.

GEO. R. SMITH, *J.P.*

APPENDIX No. 46.

REPORT OF THE PORT WARDEN AT CHATHAM, N.B., FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1893.

CHATHAM, N.B., 23rd January, 1892.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

DEAR SIR,—I beg to enclose you my report for the past year, which I trust will meet with your approval. I do not send you a copy of the different surveys, as I did not suppose they were required unless a question came up, in that case I can send you certified copies of all surveys.

Yours respectfully,

H. A. MUIRHEAD.

RECEIPTS and Expenses of Port Warden's office at Chatham, N.B., for the year ended
31st December, 1893.

	\$	cts.
Amount received for surveys.....	125	00
To paid surveyors.....	70	00
Net amount	55	00

PORT OF CHATHAM, N.B., 30th December, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I beg to submit report of surveys held at this port during season.

11th July.—SS. "Badsworth," deck load certificate.

31st August.—SS. "Monk Seaton," grounded at Nelson; certificate of seaworthiness.

5th October.—Barque "Gatineau" of Belfast, Ireland, parted her cable in Miramichi Bay, during an easterly gale and owing to the heavy seas could not cross the bar; and in order to save the lives of the crew the pilot decided to beach the vessel at Huckleberry Island. Vessel was condemned and sold with cargo of lumber for the benefit of all concerned. Proceeds of sale, \$1,958.37. Cargo was removed and brought to Douglastown by E. Hutchinson, who also stripped vessel.

6th October.—Barque "Minnehaha," of Londonderry, Ireland, struck the ground while entering the harbour in an easterly gale without a pilot. No damage. Certificate of seaworthiness.

21st October.—SS. "Hampshire," of London, aground at Nelson for twenty-four hours. Certificate of seaworthiness.

18th November.—SS. "Rydal Holme," of Maryport, England, inspected torepans, ordered by the Port Warden at Halifax. Certificate of seaworthiness.

H. A. MUIRHEAD,
Port Warden.

Steamboat Inspection.

APPENDIX No. 47.

REPORT OF THE PORT WARDEN AT HILLSBOROUGH, N.B., FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1893.

HILLSBOROUGH, N.B., 20th January, 1894.

The Honourable
Minister of Marine and Fisheries,
Ottawa.

SIR,—In submitting my report for the year ended 31st December, 1893, I beg leave to state that the Harbour of Hillsborough has been free of any disaster to shipping. I have not been called upon to act as Port Warden in any way during the year.

I am, sir,
Your obedient servant,

MALCOLM CARLISLE,
Port Warden.

APPENDIX No. 48.

REPORT OF THE PORT WARDEN AT HOPEWELL CAPE, N.B., FOR THE
CALENDAR YEAR ENDED 31st DECEMBER, 1894.

HOPEWELL CAPE, N.B., 25th January, 1894.

MEMO. surveys held on vessels by Henry J. Bennett, Port Warden.

Date.	Service.	\$ cts.
		\$ cts.
Sept. 23, 1887	American schooner "J. C. Higginson"	2 00
Jan. —, 1888	Canadian do "Clara"	8 00
Nov. —, 1889	do do "Wawbeck," survey and assistants	14 00
May —, 1890	do do "Maggie Willett"	5 00
Jan. —, 1890	American do "John Stroup," several surveys	10 00
July —, 1891	Canadian do "Arano"	5 00
June —, 1892	do barque "Alert"	8 00
April —, 1893	do schooner "Maud Pye"	5 00
	Total.....	57 00

DEAR SIR,—Above please find memo. surveys held on vessels since my appointment.

Yours most truly,

H. J. BENNETT,
Port Warden.

Steamboat Inspection.

APPENDIX No. 49.

REPORT OF THE PORT WARDEN AT MONCTON, N.B., FOR THE
CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

MONCTON, N.B., 23rd January, 1893.

WILLIAM SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

DEAR SIR,—In reply to yours of the 19th inst., asking for a report of the office of Port Warden of Moncton, I have to say that during the past year nothing has occurred in this port calling for the exercise of the duties of the Port Warden, consequently I presume no further report will be necessary.

Although many vessels arrived and cleared at this port during the past season, the port has been entirely clear from accidents of a serious nature, and nothing calling for the duties of a Port Warden.

Trusting this will prove satisfactory.

I am, sir,
Very respectfully yours,

JAMES HAMILTON,
Port Warden.

APPENDIX No. 50.

REPORT OF THE PORT WARDEN AT NEWCASTLE, N.B., FOR THE
CALENDAR YEAR ENDED 31ST DECEMBER, 1893.PORT OF NEWCASTLE, N.B., 1ST February, 1894.Hon. Minister of Marine and Fisheries,
Ottawa.

The following is a report of the doings of my office for the season of 1893.

On the 26th day of August, 1893, Captain Philip McArthur of the schooner "Corporal Trim," of Prince Edward Island, requested a survey on his cargo of oats. I at once proceeded to said vessel, received the captain's statement and held survey and instructed captain how to act, and when everything required by regulation was complied with in accordance with regulation I issued a final certificate.

On the 2nd day of October, 1893, and at the request of Captain B. Bilorncich of the barque "Otac Niko," of Rogusa, Austria, I visited the aforesaid vessel and held a survey on her for the purpose of determining whether or not she was eligible to receive a cargo of timber. I found her in every way worthy and eligible, and issued a certificate to that effect.

Yours very truly,

JOHN FERGUSON,
Port Warden.

Steamboat Inspection.

APPENDIX No. 51.

REPORT OF THE PORT WARDEN AT RICHIBUCTO, N.B., FOR THE
CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

PORT WARDEN'S OFFICE,
RICHIBUCTO, N.B., 26th January, 1894.

The Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have no report to make, as I was appointed after the close of navigation
and have held no surveys and received no fees.

I remain,
Your obedient servant,

WM. H. McLEOD,
Port Warden.

APPENDIX No. 52.

REPORT of the Port Warden at St. Andrew's, N.B., for the Calendar Year ended 31st December, 1893.

Date.		Amount.	
		\$	cts.
January 21...	Survey on hatches, schooner "Cygnet".....	2	50
February 9...	do do and cargo, schooner "Walter Sumner"	4	50
do 14...	do do schooner "Galatea," also cargo.....	4	50
do 17...	do damaged cargo on wharf.....	5	00
March 17...	do hatches, schooner "Eric"	2	50
do 21...	do valuation of cargo, schooner "Mary E"	5	00
do 22...	do hatches, schooner "Cygnet"	2	50
April 13...	do do do "Carlotta".....	2	50
July 3...	do do do "Cygnet"	2	50
Decemb'r 11...	do do do "F. A. Emerson"	2	50
do 12...	do do do "Sarah Hunter"	2	50
do 23...	do do do "Enterprise"	2	50
do 26...	do do and dunnage, schooner "N. B. Noman"	4	50
		43	50

JOHN WREN,
Port Warden.

St. ANDREW'S, N.B., 2nd January, 1894.

Sworn before me at St. Andrew's, N.B., this third day of January in the year of our Lord 1894.

WALTER M. MAGEE, *J.P.*

Steamboat Inspection.

APPENDIX No. 53.

REPORT OF THE PORT WARDEN FOR PRINCE EDWARD ISLAND FOR THE CALENDAR YEAR ENDED 21st DECEMBER, 1893.

PORT WARDEN'S OFFICE,
PRINCE EDWARD ISLAND, 31st December, 1893.

SIR,—I have the honour to submit my report of the business of my office during the past year.

I am glad to report there has been no loss of any grain-laden vessels bound to foreign ports from the island this season.

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

H. P. WELSH,
Port Warden.

To WM. SMITH, Esq.,
Department of Marine and Fisheries,
Ottawa.

RECEIPTS and Expenditure of the Port Warden's Office, Prince Edward Island, for the Year ending 31st December, 1893.

Date.	Receipts.	Amount.	Date.	Receipts.	Amount.
1893.		\$ cts.	1893.		\$ cts.
Dec. 31.	To fees derived from grain-laden vessels.....	178 50	Dec. 31.	By Expense of office.....	18 50
	Damaged goods.....	5 00		Commission to deputies...	63 25
	Survey on hatches.....	9 00		Balance.....	110 75
		192 50			192 75

I hereby certify the above to be a correct statement.

H. P. WELSH,
Port Warden.

CHARLOTTETOWN, P.E.I., 31st December, 1893.

APPENDIX No. 54.

REPORT OF THE PORT WARDEN OF BURRARD INLET, B.C., FOR THE YEAR ENDED 31st DECEMBER, 1893.

1893.		Fees.
Jan. 16....	Surveyed hatches of British barque "Sabina," (Captain Organ) from Liverpool, and found them in good order and condition	8 cts. 5 00
do 19....	Surveyed hatches ss. "Empress of Japan," and found them in good order and condition	10 00
Feb. 15....	Surveyed hatches ss. "Empress of China," from Yokohama, and found them in good order and condition	10 00
Mar. 19....	Surveyed hatches ss. "Empress of India," on arrival from Yokohama, and found them in good order and condition	10 00
do 19....	Extra survey.—I was called in to survey damage to cargo on board ss. "Empress of India," and found that a portion of the cargo in No. 1 hatch on orlop deck had been wetted by salt water caused by the breaking of one of the ventilators, the water spreading over the matting and cargo in the vicinity, the cause of which I considered to have been the straining of the ventilator by heavy seas striking it during the passage. I find the vessel had been well damaged and matted and every care taken, and I considered the vessel not liable, as the whole damage had been caused by the stress of weather	15 00
April 19....	Surveyed hatches ss. "Empress of Japan," on arrival from Yokohama, and found them in good order and condition	10 00
May 3....	Surveyed hatches ss. "Empress of China," on arrival from Yokohama and found them in good order and condition	10 00
April 19....	Extra survey.—This is to certify that W. R. Clark and H. J. Cornish, the undersigned surveyors to Lloyd's Register, at the request of Captain Lee, examined the steel twin-screw steamer "Empress of Japan," of 3,003 tons register, while lying at the Canadian Pacific Railway Company's wharf at Vancouver, for the purpose of ascertaining the extent of damage, if any, caused by the vessel striking a rock at the entrance to Esquimalt Harbour, B.C., on the 10th instant, while on her late voyage from Hong Kong to Vancouver, for particulars of which see log book. Divers from H. M. ship "Garnet" made a careful examination of the bottom under water, and a copy of their report is attached, from which it appears that the only damage found was two slight indentations in the plating on the starboard side in the forehold about 10 to 12 feet from the keel. Upon examination of the vessel, both inside and outside, as far as practicable, on the 16th instant and following days, found on the starboard side abreast of the foremast and just above the close ceiling, two indentations in the outside plating, both at landing edges, and several rivets in the way of same started and weeping slightly, the cement in the bilge timbers on the starboard side at the forepart of No. 2 hold disturbed, and the plating slightly indented, but no other damage was discovered. The undersigned recommend, as a temporary repair, that the indentation in the plating be covered with Portland cement to the depth of the frame supported by iron plates bolted to the inner edge of the frame, as shown by sketch on the margin. This would render this part of the vessel perfectly seaworthy, and on the vessel arriving at Hong Kong, where she is bound, should be placed in dry-dock, and the indented plates removed, paired and replaced, and the vessel in all respects placed in as good and efficient repair as she was before the accident occurred	16 00
	W. R. CLARK, <i>Surveyor, Lloyd's Register</i> H. L. CORNISH, <i>Surveyor, Lloyd's Register.</i>	
May 22....	Extra survey.—That I was called by Capt. McLennan of the schooner "Americana," to survey and report on part of the cargo now landed and stored in Messrs. Evans, Coleman Evan's warehouse. I found that three cases of French peas marked O. B. No. 12, 1 case marked O. B. No. 1, 4 cases mushrooms marked O. B. No. 4, and 1 case gelatine marked O. B. No. 19 had been damaged by salt water, the contents of the cases being almost worthless. The cask of gelatine, in my opinion, was not packed in as sufficiently a tight a cask so as to avoid any damp that might occur from sweat or other cause to so perishable an article in a long voyage. I consider the vessel not liable, as the whole damage had been caused by the danger of the seas while on the passage to this port	5 00

Steamboat Inspection.

REPORT of the Port Warden of Burrard Inlet, B.C.—Continued.

1893.	—	Fees.
May 27....	Surveyed hatches ss. "Empress of India," on arrival from Yokohama, and found them in good order	\$ cts. 10 00
June 6....	Was called to survey and report on stowage of the British ship "Kinkora," from Liverpool, and now laying at Bell, Irving & Patterson's wharf. I found that the cargo was in good order with the exception of a quantity of iron tubing which was rusted, the cause of which is unaccountable, as all the rest of the cargo, and especially the bar iron in the immediate vicinity, was in fine order and free from rust. The vessels showed no sign of leakage or sweat, and the salt in the vessel being stowed at each end of the ship, clear of the pipes at least sixty feet, so that it could not have been the cause of the damage. I also found in the fore peak two or three casks of oil that had leaked to some extent, but I consider the casks to have been well stowed and dunnaged, and I attributed the damage to insufficient strength of package, as they were only two ties deep and should sustain such a weight. I found that every care had been taken in the stowage and dunnage of the ship throughout	5 00
do 16....	Surveyed hatches ss. "Empress of Japan" on arrival from Yokohama and found them in good order and condition	10 00
do 16....	Extra survey.—I was called to survey damage to cargo of the ss. "Empress of Japan," discharging at Canadian Pacific Railway Company's wharf at Vancouver from Yokohama. I found that in No. 1 hold a quantity of chests of tea were stained by sweat or damp, but I could not find any cause for same, as the hold was dry and cargo well stowed and dunnaged. In No. 2 hatch in lower hold I found that a great number of sacks of sugar had sweated and caked which I attributed to pressure and want of ventilation, which could not be had so low in vessel, as the sugar packs so closely in stowage in bags. There was also in silk room two bales of silk slightly stained by wet, the cause of which was from a slight leak in one of the water pipe joints. I found that the whole cargo had been well stowed and dunnaged and every care taken to deliver the same in good order and condition and the vessel not liable for said damage	15 00
July 18....	Surveyed hatches ss. "Empress of China" on arrival from Yokohama and found them in good order and condition	10 00
do 28....	Surveyed hatches ss. "Empress of India" on arrival from Yokohama and found them in good order and condition	10 00
Aug. 4....	Called to survey the cargo of American barque "St. Catherine," Capt. Paragis, from Yokohama. I found that a portion of the cargo on the port side, abreast of main channel bolts and between deck, had been wet by salt water, and also on starboard side, abreast of forerigging, several chests wet, and the chests of tea in the immediate vicinity of above place stained more or less. I attribute the damage to the vessel straining when on the voyage to this port. I found that every care has been taken in dunnaging and matting and ventilating of cargo, and I consider the vessel not liable, as the damage has been caused by stress of weather, and I advised that damaged cargo be forwarded to its destination to avoid any further loss or deterioration to whom it may concern. A complete list of damaged cargo with marks and numbers attached	10 00
Aug. 4....	Surveyed hatches of American barque "St. Catherine," (Captain Paragis) from Yokohama with a cargo of teas and found them properly covered and in good order and condition	5 00
do 20....	Surveyed hatches of ss. "Empress of Japan," on arrival from Yokohama and found them in good order and condition	10 00
do 22....	Surveyed hatches of German ship "Sirene," and found them in good order and condition	5 00
do 28....	I was called to examine and report on the cargo of the ship "Sirene," (Captain Saurmilch) of Bremen, and consigned to the Canadian Pacific Railway Company. I found on opening the hatches that a number of cases of tea had been slightly stained by sweat, and those nearest the combing quite wet by same cause, and the want of ventilation, which, in my opinion, could not be avoided without opening the hatches, which would endanger the whole cargo. I found that the vessel had been well stowed and matted and dunnaged in first class order and I consider the vessel not liable for any stained or damaged packages on the following list attached, and would advise that the same be forwarded to its destination so that there may be no further loss to whom it may concern	15 00
Sept. 8....	Surveyed hatches ss. "Empress of China," on arrival from Yokohama, and found them in good order and condition	10 00
Oct. 1....	Surveyed hatches ss. "Empress of India," on arrival from Yokohama, and found them in good order and condition	10 00

REPORT of the Port Warden of Burrard Inlet, B.C.—Continued.

1893.		Fees.
		\$ cts.
Oct. 4....	Surveyed hatches American ship "A. J. Fuller," of New York (Captain De Winter) on arrival from Kobi, Japan, and found them in good order and condition. The cargo was well stowed and matted, and dunnaged in good order.....	5 00
do 30....	Surveyed hatches ss. "Empress of Japan," on arrival from Yokohama and found them in good order and condition.....	10 00
do 30....	Extra survey.—I was called to survey and ascertain cause of damage to a portion of the cargo of the ss. "Empress of Japan." I find that in the silk room a number of chests of tea and other merchandise have been stained more or less by moisture which has been caused by slight leakage of a joint in one of the water pipes, it evidently having been strained. Also in the lower hold a number of sacks of sugar stained by sweat. I found that the ship had been well matted and dunnaged and every care taken to ensure the safe delivery of the cargo, and consider the vessel not liable for said damage and would advise that the cargo be forwarded to its destination so as to avoid further loss to whom it may concern. A list of damaged cargo was attached.....	15 00
do 9....	Surveyed hatches of the British ship "Broderick Castle," of Glasgow (Captain Fergusson), on arrival from Yokohama, Japan, with part cargo of teas and found them properly covered with tarpaulins and in good order and condition.....	5 00
Nov. 18....	Surveyed hatches ss. "Empress of China," on arrival from Yokohama and found them in good order and condition.....	10 00
do 20....	Surveyed hatches British ship "Duncraig," on arrival from Liverpool, and found them properly covered and in good order, and, on opening, all the cargo in sight was in good order and condition, the cargo being well stowed and dunnaged that has been delivered at this port.....	5 00
Nov. 28....	Extra survey.—I was called to survey and ascertain cause of damage of part of cargo of the ss. "Empress of China," voyage 12 from Yokohama. I found on discharging the silk room that the lower tiers of tea and other merchandise had been more or less wet and stained, part of which had been done by sweat and salt water combined. I had the lining of the silk room removed, but could not trace where the leak came from, but would recommend that a further search be made on arrival in China, as there may be a slack rivet or bolt in the side of the ship causing a leak when the vessel rolls heavily. I also found in lower hold, below the after cargo ports, a portion of the cargo slightly wet, which may have been caused by said parts straining during the heaving rolling of the vessel. I found the cargo well dunnaged and matted, and consider the damage has been caused by stress of weather on the passage to this port, and recommend that the same be forwarded to its destination so as to avoid any further loss to whom it may concern. A list of damaged cargo was attached.....	15 00
Dec. 16....	Surveyed hatches ss. "Empress of India" on arrival from Yokohama and found them in good order and condition.....	10 00
do 21....	I was called by Capt. Lee and the United States Consul to hold a survey with Captains Copp and Sewell on the American barque "Templar" now lying at Hastings saw mill wharf, Vancouver, B.C., with her cargo of timber under deck loaded. We found that in said barque timber was out of trim, being nearly two feet by the stern, the vessel drawing 19 feet 2 inches forward and 21 feet aft. We also found that the vessel laying at present anchorage does not make more than two inches of water in twenty-four hours, and in our opinion the carrying of a reasonable deck load so as to bring the vessel in proper trim would not add any serious risk to life or property on this particular voyage to Callao, as the vessel has eight feet of free board, and to all appearances on deck fit and able to carry same, and would add to the sailing of the vessel and comfort of those on board as all water on deck lays aft by cabin and does not free itself as it should if ship was in proper trim.....	15 00
By Total amount of fees.....		306 00
To Rent of office at \$5 per month.....		\$ 60 00
Stationery.....		5 00
		65 00
Balance.....		241 00

This is a correct statement.

Sworn before me at the City of Vancouver, }
the 6th day of January, 1894.

M. W. THAIN,
Port Warden.

J. SCHOFIELD, J.P.

Steamboat Inspection.

APPENDIX No. 59.

REPORT OF THE PORT WARDEN AT VICTORIA, B.C., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1893.

VICTORIA, B.C., 6th January, 1894.

SIR,—I have the honour to inclose the annual returns of this office.

I beg to remain,
Your obedient servant,

W. R. CLARKE,
Port Warden.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

VICTORIA, B.C., 5th January, 1894.

PORT WARDEN'S Account for the year ending 31st December, 1893.

Name.	Service.	Amount.
Barque Assel.. .. .	Survey of hatches.	\$ 5 00
do	Superintending discharge of cargo.	25 00
Barque Mary Lowe.	Survey of hatches.	5 00
do	Superintending discharge of cargo.	25 00
Four masted schooner Americana.	Survey of hatches.	5 00
Barque Dochra	do	5 00
SS. Mogul	do	5 00
do	Survey	5 00
SS. Tacoma.	Survey of hatches.	5 00
do	Survey	5 00
Schooner Americana	One survey.	2 00
Kinkora.	Survey of hatches.	5 00
do	Three surveys at \$2 each.	6 00
SS. Mogul	Survey of hatches.	5 00
do	do on cargo	5 00
Barque Thermopylae	do of hatches	5 00
SS. Victoria	do do	5 00
do	do on cargo	5 00
Barque Formosa.	do of hatches.	5 00
do	do on cargo	25 00
Barque Candida	do of hatches.	5 00
do	do on cargo	25 00
Total		188 00

W. R. CLARKE,
Port Warden.

APPENDIX No. 56.

REPORT OF THE PORT WARDEN AT NANAIMO, B.C., FOR THE
CALENDAR YEAR ENDED 31ST DECEMBER, 1893.

NANAIMO, B.C., 5th February, 1894.

WM. SMITH, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—As Port Warden, I have not been requested to perform any duties of that office as there is little or no direct importation in bulk to the ports at Nanaimo or Departure Bay, as the goods imported here are either reshipped in Vancouver or Victoria. I hope in the near future I shall have some chance of acting officially as Port Warden.

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

E. QUENNEL,
Port Warden.

P.S.—I omitted to inclose receipts for the \$15 placed to the credit of Receiver General.

Steamboat Inspection.

APPENDIX No. 57.

STATEMENT showing results of certain returns respecting Shipping and Discharging of Seamen, received by the Department of Marine in accordance with the provisions of Chapter 74, Consolidated Statutes of Canada, from Shipping Masters throughout the Dominion, for the half-years ended 30th June and 31st December, 1893.

NOTE.—Names printed in italics are Shipping Masters appointed under the Act, the others the Collectors of Customs who act as Shipping Masters.
Q U E B E C.

Name of Port.	Name of County.	Name of Shipping Master.	For Half-year ended 31st June, 1893.			For Half-year ended 30th December, 1893.			Total Seamen Shipped.	Total Seamen Discharged.	Total Amount.
			Seamen Shipped.	Seamen Discharged.	Amount.	Seamen Shipped.	Seamen Discharged.	Amount.			
					\$ cts.			\$ cts.			
Escoumains.	Bonaventure.	John Topping.									
Gaspe.	Gaspe.	<i>F. G. Eden.</i>									
Magdalen Islands.	Gaspe.	P. L. Jones									
Montreal.	Montreal.	<i>Henry McKay.</i>	1,583	Nil	1,020 70	Nil	2,159	4,123	Nil	2,988 40	
New Carlisle.	Bonaventure.	P. C. Beauchesne.	7	2	4 10	2,840					
New Richmond.	Bonaventure.	R. W. H. Dimock.									
Perce.	Gaspe.	W. Flynn.									
Quebec.	Quebec.	<i>J. U. Greger.</i>				7	Nil			3 50	
Rimouski.	Rimouski.	J. A. Martin.	182	46	104 80	470	284	652	330	425 00	
St. Johns.	St. Johns.	E. D. Phillips.				Nil	Nil				
Sorel.	Richelieu.	Joseph Mathieu.				Nil	Nil				
Three Rivers.	Three Rivers.	P. H. Vanasse.				Nil	1			0 30	
NEW BRUNSWICK.											
Alma.	Albert.	D. Cleveland.				3	3			2 40	
Bathurst.	Gloucester.	W. J. O'Brien.									
Buckouche.	Kent.	J. J. LeBlanc.									
Chatham.	Northumberland.	<i>J. J. Brown.</i>	42	12	24 60	156	66	198	78	122 40	
Cocagne.	Kent.	A. K. Dyrart.				Nil	Nil				
Dalhousie.	Restigouche.	W. Montgomery.									
Dorchester.	Westmoreland.	Walter Dobson.	10	8	7 40	16	19	26	27	21 10	
Fredericton.	York.	A. F. Street.	Nil	1	0 30						
Grand Manan.	Charlottet.	E. A. Calder.									
Harvey.	Albert.	G. Brewster.	21	6	12 30	47	39	68	45	47 50	
Hillsborough.	Albert.	John Wallace.	34	10	20 00	15	10	49	20	30 50	

Steamboat Inspection.

Port Hill.....	Prince	W. Hopgood.....	9	Nil.	4 50			
St. Peter's Bay.....	King's	J. A. McLaine.....						
Souris.....	King's	Michael J. Foley.....						
Summerside.....	Prince	Jos. Reed.....		34	26	24 80		
Tignish.....	Prince	George Conroy.....						
West Cape.....	Prince	Vacant.....						

BRITISH COLUMBIA.

New Westminster.....	New Westminster.	J. S. Clute.....	Nil.	Nil.		4 90	8	4 90
Vancouver.....	New Westminster.	J. M. Bowell.....						
Victoria.....	Victoria.	H. G. Lewis.....	982	120	527 00	410 30	1,253	1,036
								987 30

APPENDIX No. 58.

LIST of Certificates of Competency granted to Masters and Mates of Inland and Coasting Vessels during the year ended 30th June, 1893.

Number of Certificate.	Name of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
						\$ cts.
1892.						
1002	July 4.	C. E. Seymour	Mate	New Westminster, B.C.	Victoria	4 00
1003	do 7.	W. Allan	Master	Port Dover	St. Catharines	8 00
1004	do 7.	T. W. Close	Mate	Toronto, Ont.	do	4 00
1005	do 7.	S. A. McCormick	Master	Pelee Island, Ont.	do	8 00
1006	do 7.	V. Robinson	do	Chatham, Ont.	do	8 00
1007	do 7.	J. H. Wilcke	do	Lunenburg, N.S.	Lunenburg	8 00
1008	do 11.	G. Johnston	do	Kingston, Ont.	Kingston	8 00
1009	do 11.	H. Mitchell	do	Ship Harbour	Sydney	8 00
1010	do 20.	A. Mathews	Mate	Hamilton, Ont.	St. Catharines	4 00
1011	do 20.	W. Abel	do	Port Dalhousie	do	4 00
1012	do 20.	C. Hogue	do	St. Timothy, Que.	Ottawa	4 00
1013	do 22.	T. M. Harding	Master	Yarmouth, N.S.	St. John	8 00
1014	do 27.	P. Hansen	Mate	Gravenhurst, Ont.	St. Catharines	4 00
1015	Aug. 12.	G. Henderson	do	Lakeport, Ont.	do	4 00
1016	do 19.	J. Menzie	Master	Sydney, C.B.	Sydney	8 00
1017	do 26.	E. G. McCormick	Mate	Pelee Island, Ont.	St. Catharines	4 00
1018	do 26.	E. Norquay	Master	Port Dover, Ont.	do	8 00
1019	do 26.	H. S. Bagnell	do	Sydney, C.B.	Sydney	8 00
1020	do 26.	T. Knight	Mate	Sarnia, Ont.	St. Catharines	4 00
1021	do 30.	W. Gardner, jun	do	Victoria, B.C.	Victoria	4 00
1022	do 30.	J. Tertill	Master	Brant, Ont.	St. Catharines	4 00
1023	do 30.	D. Apt	Mate	Westfield, N.B.	St. John	4 00
1024	do 30.	W. H. Whelply	do	St. John, N.B.	do	4 00
1025	Sept. 13.	C. E. Laverdiere	Master	Rat Portage, Ont.	Rat Portage	8 00
1026	do 13.	M. Smith	do	do	do	8 00
1027	do 13.	E. W. Brydges	do	do	Toronto	8 00
1028	do 13.	M. McRitchie	do	do	Rat Portage	8 00
1029	do 13.	C. Richter	Master	St. John, N.B.	St. John	8 00
1030	do 15.	E. C. Crowell	Mate	Sommerville, N.S.	do	4 00
1031	do 20.	G. Abel	Master	Port Dalhousie, Ont.	St. Catharines	8 00
1032	do 20.	J. Brown	Mate	Toronto, Ont.	do	4 00
1033	do 20.	J. D. McPherson	Master	Sarnia	do	8 00
1034	do 20.	R. F. Carter	do	Niagara Falls	do	8 00
1035	do 20.	A. W. Mann	do	Gabarus, C.B.	Sydney	8 00
1036	do 20.	C. C. Heeschen	do	Halifax, N.S.	Halifax	8 00
1037	do 23.	G. Martin	do	St. Jérôme, Que.	Quebec	8 00
1038	do 26.	J. J. Cree	Mate	Pelee Island, Ont.	St. Catharines	4 00
1039	do 26.	L. Malcott	Master	Kingsville, Ont.	do	8 00
1040	do 30.	J. S. Holder	do	St. John, N.B.	St. John	8 00
1041	Oct. 6.	A. C. Fisher	do	Keewatin, Ont.	Toronto	8 00
1042	do 10.	J. Badcock	Mate	Victoria, B.C.	Victoria	4 00
1043	do 7.	C. H. Cates	Master	Vancouver, B.C.	do	8 00
1044	do 7.	P. J. Nolan	Mate	St. John, N.B.	St. John	4 00
1045	do 22.	D. L. Mather	Master	Keewatin, Ont.	Toronto	8 00
1046	Nov. 2.	A. Freeman	do	Vancouver, B.C.	Victoria	8 00
1047	do 2.	A. J. Bjerre	do	do	Vancouver	8 00
1048	do 4.	C. Moody	do	do	Victoria	8 00
1049	do 5.	D. M. Beardley	Mate	Port Lorne, N.S.	St. John	4 00
1050	do 9.	W. F. Bushbrook	do	Toronto, Ont.	Toronto	4 00
1051	do 21.	T. J. Clark	Master	do	St. Catharines	8 00
1052	do 28.	J. McNulty	Mate	St. John, N.B.	St. John	4 00
1053	Dec. 2.	A. Reneau	do	St. Timothy	St. Catharines	4 00
1054	do 5.	A. L. Kennedy	Master	Stirling Falls	do	8 00
1055	do 5.	W. N. Davis	Mate	Yarmouth, N.S.	Yarmouth	4 00

Steamboat Inspection.

List of Certificates of Competency granted to Masters and Mates, &c.—Continued.

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	When Examination was passed.	Fee.
	1893.					\$ cts.
1056	Dec. 7.	C. LeBlanc	Mate	Belliveau's Cove, N.S.	Yarmouth	4 00
1057	do 24.	J. Tremblay	Master	St. Roch, Que	Quebec	8 00
1058	do 24.	C. I. Harris	Mate	Victoria, B.C.	Victoria	4 00
1059	do 28.	J. O. Townsend	do	do	do	4 00
1060	do 28.	C. N. Nicholas	do	do	do	4 00
1061	do 28.	J. F. Anderson	Master	do	do	8 00
1062	do 28.	Peter McIntyre	Mate	Bresqu Isle, Ont.	Toronto	4 00
1063	do 24.	C. W. Henshaw	Master	Port Carling, Ont.	St. Catharines	8 00
1064	Jan. 3.	Chas. Henry Barnes	Master	River Hebert, N.S.	St. John	8 00
1065	do 3.	F. McMann	do	Thorold, Ont.	St. Catharines	8 00
1066	do 3.	C. L. Hopkins	do	Barrington, N.S.	Halifax	8 00
1067	do 3.	A. P. Harvey	do	Somerville, N.S.	St. John	8 00
1068	do 4.	M. McDonald	do	Goderich, Ont.	St. Catharines	8 00
1069	do 5.	J. Freeman	Mate	Nanaimo, B.C.	Victoria	4 00
1070	do 5.	J. E. Hamilton	do	Vancouver, B.C.	do	4 00
1071	do 5.	F. Monk	do	do	do	4 00
1072	do 7.	J. Rainfrette, jr	Master	St. Zotique, Que	Kingston	8 00
1073	do 9.	Z. Richard	Mate	Getson's Point, N.S.	Lunenburg	4 00
1074	do 9.	C. E. Carlson	do	St. John, N.B.	St. John	4 00
1075	do 9.	A. Conrad	do	Getson's Point, N.S.	Lunenburg	4 00
1076	do 11.	J. Sixsmith	Master	Toronto, Ont.	St. Catharines	8 00
1077	do 13.	W. Green	do	Callendar, Ont	do	8 00
1078	do 13.	J. H. Dixon	do	Cape Sable, N.S.	Halifax	8 00
1079	do 25.	Chas. H. Riley	do	St. John, N.B.	St. John	8 00
1080	do 26.	W. Chapman	do	Wiarion, Ont.	St. Catharines	8 00
1081	do 27.	W. H. Bemrose	Mate	Maxwell, Ont.	do	4 00
1082	do 30.	François Fortin	Master	Levis, Que.	Quebec	8 00
1083	do 28.	Willard B. Spragg	do	St. John, N.B.	St. John	8 00
1084	Feb. 1.	C. Rickett	do	Wisawasa, Ont.	Ottawa	8 00
1085	do 1.	J. J. Campbell	Mate	Victoria, B.C.	Victoria	4 00
1086	do 1.	J. Mayers	Master	New Westminster	do	8 00
1087	do 1.	T. J. Kickham	Mate	Vancouver, B.C.	do	4 00
1088	do 1.	H. Oldenburg	Master	Windsor, Ont.	St. Catharines	8 00
1089	do 2.	J. O. B. Latour	do	Ottawa, Ont	Ottawa	8 00
1090	do 3.	W. G. Robson	do	Dwight, Ont.	St. Catharines	8 00
1091	do 6.	S. A. Morrell	do	St. John, N.B.	St. John	8 00
1092	do 6.	R. J. Weldon	do	do	do	8 00
1093	do 10.	W. R. Merriam	do	Port Greville	do	8 00
1094	do 10.	S. Olson	do	St. John, N.B.	do	8 00
1095	do 14.	A. Strum	Mate	Mader's Cove, N.S	Halifax	4 00
1096	do 14.	J. W. Wagner	Master	St. John, N.B.	St. John	8 00
1097	do 13.	Ira Slocomb	do	do	do	8 00
1098	do 14.	L. Morancy	do	Berthier, en bas, Que.	Quebec	8 00
1099	do 17.	D. McCormick	do	Pelee Island, Ont.	St. Catharines	8 00
1100	do 18.	H. Blackstad	Mate	Victoria, B.C.	Victoria	4 00
1101	do 21.	F. Roquey	Master	Garden Island, Ont.	Kingston	8 00
1102	do 21.	G. A. LaRush	do	Mattawa, Ont	St. Catharines	8 00
1103	do 21.	A. A. Batten	Mate	Collingwood, Ont.	do	4 00
1104	do 24.	E. Young	do	Young's Point, Ont.	Kingston	4 00
1105	Mar. 6.	E. C. Sears	do	Montreal, Que	Quebec	4 00
1106	Feb. 24.	Ronald Bell	do	Owen Sound, Ont.	St. Catharines	4 00
1107	Mar. 6.	Alex. McLennan	do	New Westminster, B.C.	Victoria	4 00
1108	Feb. 24.	Martin Dahle	Master	St. John, N.B.	St. John	8 00
1109	do 28.	B. Bennett	do	Maitland, Ont	St. Catharines	8 00
1110	do 28.	W. Bartlett	Mate	New Westminster, B.C.	Victoria	4 00
1111	Mar. 13.	E. R. Hudson	Master	Annapolis, N.S.	St. John	8 00
1112	do 4.	J. A. Montgomery	do	Collingwood, Ont.	St. Catharines	8 00
1113	do 4.	M. Ironside	Mate	Owen Sound, Ont.	do	4 00
1114	do 6.	Frank R. Churchill	Master	Halifax, N.S.	Halifax	8 00
1115	do 6.	F. Wood	do	Wiarion, Ont.	St. Catharines	8 00
1116	do 6.	L. E. Hatfield	Mate	Port Greville, N.S.	St. John	4 00
1117	do 6.	R. J. Belyea	Master	St. John, N.B.	do	8 00
1118	do 6.	A. McLean	do	Waterbury, N.B.	do	8 00
1119	do 7.	J. E. Tutty	do	Louisburg, C.B.	Sydney	8 00

List of Certificates of Competency granted to Masters and Mates, &c.—Continued.

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1893.					\$ cts.
1120	Mar. 7	W. Dorrell	Master	Portage du Fort, Que.	Ottawa	8 00
1121	do 13	H. J. Shanklin	do	Springfield, N. B.	St. John	8 00
1122	do 10	F. X. Lachance	do	Isle aux Grues, Que.	Quebec	8 00
1123	do 10	L. Lachance	do	St. Jean, Isle d'Orléans	do	8 00
1124	do 10	J. McKenzie	Mate	Owen Sound, Ont.	Toronto	4 00
1125	do 10	Chas. Melene	Master	St. John, N. B.	St. John	8 00
1126	do 12	E. E. Hall	do	Port Lorne, N. S.	do	8 00
1127	do 12	J. E. Collins	do	Advocate, N. S.	Halifax	8 00
1128	do 12	R. James	Master	St. John, N. B.	Halifax	8 00
1129	do 13	W. J. Madden	Mate	Penetanguishene, Ont.	Toronto	4 00
1130	do 13	H. E. Himmelman	Master	Parrsboro', N. S.	St. John	8 00
1131	do 15	W. McCracken	do	Port Colborne, Ont.	St. Catharines	8 00
1132	do 16	E. Cloutier	Mate	Anse à Giles, Que.	Quebec	4 00
1133	do 16	W. Meakin	Master	French River, Que.	St. Catharines	8 00
1134	do 16	D. J. Currie	do	Sydney, N. S.	Sydney	8 00
1135	do 17	H. Lefave	do	Garden Island, Ont.	Kingston	8 00
1136	do 17	M. McPhee	do	Owen Sound, Ont.	St. Catharines	8 00
1137	do 18	E. Fulton	Mate	New Westminster, B. C.	Victoria	4 00
1138	do 18	B. McIntyre	Master	Port Dalhousie, Ont.	St. Catharines	8 00
1139	do 28	T. McAvoy	do	do	do	8 00
1140	do 28	E. A. Wray	Mate	Burlington, Ont.	do	4 00
1141	do 28	E. McCormick	Master	Midland, Ont.	do	8 00
1142	Mar. 27	A. Christenson	Mate	Victoria, B. C.	Victoria	4 00
1143	do 27	J. Redmond	Master	Ottawa, Ont.	Ottawa	8 00
1144	do 27	G. T. Dunnett	Mate	Collingwood, Ont.	St. Catharines	4 00
1145	do 27	A. McDonald	do	Toronto, Ont.	Toronto	4 00
1146	do 27	Wm. White	Master	Maitland, Ont.	St. Catharines	8 00
1147	do 29	E. Brunell	do	Champlain, Que.	Quebec	8 00
1148	April 1	D. G. Cumming	do	Armstrong, B. C.	Victoria	8 00
1149	do 6	W. H. Michéau	do	Sydney, C. B.	Sydney	8 00
1150	do 6	A. Blanchette	do	Klock's Mills, Que.	Ottawa	8 00
1151	do 6	W. James	Mate	Leamington, Ont.	St. Catharines	4 00
1152	do 6	A. McKinney	Master	Callendar, Ont.	do	8 00
1153	do 7	J. Baunpton, jun	do	Welland, Ont.	do	8 00
1154	do 7	G. N. Bothwell	do	Buckingham, Que.	Ottawa, Ont.	8 00
1155	do 7	J. Devenney	do	do	do	8 00
1156	do 7	C. E. Redfern	do	Lakeport, Ont.	Kingston, Ont.	8 00
1157	do 7	F. W. Morley	do	Sydney, C. B.	Sydney	8 00
1158	do 7	A. Curry	do	Windsor	Halifax	8 00
1159	do 7	C. C. Taylor	Mate	Sheffield, N. B.	St. John, N. B.	4 00
1160	do 7	R. Freeman	Master	St. Catharines, Ont.	St. Catharines	8 00
1161	do 7	George Waugh	do	Owen Sound, Ont.	do	8 00
1162	do 7	J. E. Rathburn	Mate	Solmesville, Ont.	Kingston	4 00
1163	do 10	W. Paul	Master	Sorel, Que.	Sorel	8 00
1164	do 10	J. B. Pouliot	do	St. Jean, Isle of Orleans	Quebec	8 00
1165	do 10	Charles Richard	do	Sorel, Que.	Sorel	8 00
1166	do 10	Charles Lavalee	do	do	do	8 00
1167	do 10	G. Lebrun	do	do	do	8 00
1168	do 10	P. Beauchemin	do	do	do	8 00
1169	do 11	W. Murphy	Mate	Pembroke, Ont.	Ottawa	4 00
1170	do 11	H. D. Mulligan	Master	do	do	8 00
1171	do 11	J. Crouse	Mate	Bridgewater, N. S.	Lunenburg	4 00
1172	do 13	R. Clark	do	Port Dalhousie, Ont.	St. Catharines	4 00
1173	do 15	R. Smith	Master	Midland, Ont.	do	8 00
1174	do 18	I. Eward	do	Prescott, Ont.	Kingston	8 00
1175	do 20	H. Harbottle	Mate	Toronto, Ont.	St. Catharines	4 00
1176	do 20	J. Ewart	Master	Cobourg, Ont.	do	8 00
1177	do 20	J. B. Folger	do	Kingston, Ont.	Kingston	8 00
1178	do 21	E. Dion	do	Lévis, Que.	Ottawa	8 00
1179	do 25	W. J. Warnock	Mate	St. John, N. B.	St. John	8 00
1180	do 25	A. McNab	Master	Owen Sound, Ont.	St. Catharines	4 00
1181	do 25	G. W. Sutherland	do	Welland, Ont.	do	8 00
1182	do 25	John A. Cragg	do	Dresden, Ont.	do	8 00
1183	do 25	D. McLeod	do	Sarnia, Ont.	do	8 00

Steamboat Inspection.

List of Certificates of Competency granted to Masters and Mates, &c.—*Concluded.*

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1893.					\$ cts.
1184	April 27.	J. B. Currie.....	Mate.....	Collingwood, Ont.....	St. Catharines.	4 00
1185	do 27.	J. Cavanagh.....	Master.....	Cobourg, Ont.....	do.....	8 00
1186	May 2.	W. E. McPherson.....	do.....	Sydney, C.B.....	Sydney.....	8 00
1187	do 4.	C. W. Rockwell.....	do.....	River Herbert, N.S.....	St. John.....	8 00
1188	do 6.	J. Crosby.....	do.....	Garden Island.....	Kingston.....	8 00
1189	do 10.	W. Atkinson.....	do.....	Port Dalhousie, Ont.....	St. Catharines.	8 00
1190	June 26.	E. Spicer.....	do.....	Parrsborough, N.S.....	St. John.....	8 00
1191	May 19.	A. Matheson.....	Mate.....	Kincardine, Ont.....	St. Catharines.	4 00
1192	do 19.	F. C. Lord.....	Master.....	Deer Island, N.B.....	St. John.....	8 00
1193	do 19.	W. Harrison.....	do.....	Deseronto, Ont.....	St. Catharines.	8 00
1194	do 23.	J. E. Dukeshar.....	Mate.....	St. John, N.B.....	St. John.....	4 00
1195	do 23.	L. Whiteman.....	Master.....	Dartmouth, N.S.....	Halifax.....	8 00
1196	do 23.	J. Walters.....	Mate.....	Victoria, B.C.....	Victoria.....	4 00
1197	do 23.	F. T. Sanders.....	do.....	Whonnock, B.C.....	do.....	4 00
1198	do 29.	J. Speight.....	Master.....	St. John, N.B.....	St. John.....	8 00
1199	do 29.	C. Anderson.....	do.....	Little Current, Ont.....	St. Catharines.	8 00
1200	June 3.	T. W. Spragg.....	Mate.....	Springfield, Ont.....	St. John.....	4 00
1201	do 3.	A. Jamieson.....	do.....	Atherley, Ont.....	St. Catharines.	4 00
1202	do 3.	R. Patterson.....	do.....	Toronto, Ont.....	do.....	4 00
1203	do 3.	W. G. Sinclair.....	do.....	Warton, Ont.....	do.....	4 00
1204	do 6.	W. Sutherland.....	do.....	Goderich, Ont.....	do.....	4 00
1205	do 7.	W. E. Adams.....	Master.....	Lord's Cove, N.B.....	St. John.....	8 00
1206	do 7.	W. D. Owen.....	do.....	Victoria, B.C.....	Victoria.....	4 00
1207	do 7.	A. W. Sills.....	Mate.....	Deseronto, Ont.....	Kingston.....	8 00
1208	do 8.	T. Lathan.....	Master.....	St. John, N.B.....	St. John.....	8 00
1209	do 8.	H. Esford.....	do.....	Barriefield, Ont.....	Kingston.....	8 00
1210	do 8.	J. A. Wilson.....	Mate.....	Newmarket, Ont.....	do.....	4 00
1211	do 12.	E. W. Page.....	Master.....	Lockeport, N.S.....	Lunenburg.....	8 00
1212	do 12.	J. H. Page.....	do.....	do.....	do.....	8 00
1213	do 13.	J. Mercer.....	Mate.....	Winona, Ont.....	St. Catharines.	4 00
1214	do 13.	N. Atkinson.....	Master.....	Sackville, N.B.....	St. John.....	8 00
1215	do 13.	G. Hayward.....	do.....	Nelson, B.C.....	Victoria.....	8 00
1216	do 30.	John Hare.....	do.....	Dresden, Ont.....	St. Catharines.	8 00

List of Service Certificates granted to Masters and Mates of Inland and Coasting Vessels during the Year ended 30th June, 1893.

Number of Certificate.	Date of Certificate		Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1892.							$	cts.
2975	July	4.	A. Brown	Master	Dresden, Ont.	St. Catharines	4 00
2976	do	4.	C. Lewis	do	Keewatin, Ont.	Ottawa	4 00
2977	do	4.	S. O. Huestes	do	Halifax, N.S.	Halifax	4 00
2978	do	4.	James Clarke	Mate	Kingston, Ont.	Kingston	2 00
2979	do	20.	J. Longhurst	Master	Niagara, Ont.	St. Catharines	4 00
2980	do	20.	T. A. Morrison	do	Five Islands, N.S.	Parrsboro'	4 00
2981	do	20.	R. Mosher	do	Port Francis, Ont.	Ottawa	4 00
2982	do	27.	J. Belisle	Mate	Brockville, Ont.	Brockville	2 00
2983	do	29.	J. A. Nowell	Master	West Selkirk, Man.	Winnipeg	4 00
2984	do	29.	H. McIntyre	Mate	Port Colbourne, Ont.	St. Catharines	2 00
2985	do	29.	A. Baird	Master	Toronto, Ont.	do	4 00
2986	Aug.	4.	R. Williams	Mate	Dartmouth, N.S.	Halifax, N.S.	2 00
2987	do	19.	R. S. Kerr	do	Fox River, N.S.	Parrsboro'	2 00
2988	Sept.	13.	J. N. Godin	Master	Rat Portage	Toronto	4 00
2989	do	13.	J. W. Short	do	do	Rat Portage	4 00
2990	do	15.	W. Black	do	Bellville, Ont.	Kingston	4 00
2991	do	15.	H. Paxton	do	Victoria, B.C.	Victoria	4 00
2992	do	15.	A. Campbell	Mate	Main à Dieu, N.S.	Halifax	2 00
2993	do	20.	O. C. Giffin	Master	Isaacs Harbour, N.S.	do	4 00
2994	do	20.	J. K. Marshall	do	West Selkirk, Man.	Winnipeg	4 00
2995	do	22.	A. Morrison	do	Selkirk, Man.	do	4 00
2996	do	26.	J. A. Clark	do	Sturgeon Falls, Ont.	St. Catharines	4 00
2997	do	26.	W. A. Beebe	do	Port Arthur	do	4 00
2998	Oct.	7.	E. Lebel	do	St. Roch des Aulnaies	Quebec	4 00
2999	do	10.	H. F. Bishop	Mate	Victoria, B.C.	Victoria	2 00
3000	do	22.	J. F. Calbick	Master	Gananogue, Ont.	Ottawa	4 00
3001	Nov.	7.	E. C. Odell	Mate	St. John, N.B.	St. John	2 00
3002	do	5.	Wm. Smith	Master	East Chesetcook, N.S.	Halifax	4 00
3003	do	7.	T. Densmore	Mate	Windsor, N.S.	Parrsboro'	2 00
3004	do	8.	J. Cousins	Master	Canso, N.S.	Halifax	4 00
3005	do	14.	A. Campbell	do	Pictou, N.S.	do	4 00
3006	do	21.	J. B. Desgrosseilliers	do	St. Etienne de Beauhar- nois	Kingston	4 00
3007	Dec.	7.	J. Hunter	Mate	Belleville, Ont.	do	2 00
3007	do	24.	J. W. Hunt	Master	Medway, N.S.	Halifax	4 00
3008	do	24.	J. Kingsland	Mate	Halifax, N.S.	do	2 00
3009	do	30.	James Hall	Master	L'Ardois, C. B.	do	4 90
3010	do	30.	W. Egan	do	Sackville, N.B.	St. John	4 00
3011	do	30.	E. R. Larash	Mate	Wolf Island, Ont.	Kingston	2 00
3012	do	30.	Simeon Baker	Master	Margaretville, N.S.	Kentville	4 00
1893.							
3013	Feb.	11.	M. Felan	do	Oakville, Ont.	Ottawa	4 00
3014	do	13.	J. I. Culliton	Mate	Pictou, Ont.	Pictou	2 00
3015	do	7.	Thos. O'Leary	Master	Victoria, B.C.	Halifax	4 00
3016	do	7.	David A. Sangster	do	Guy'sboro, N.S.	do	4 00
3017	do	7.	George Mallory	do	Lindsay, Ont.	Kingston	4 00
3018	do	7.	George Peters	do	Little Current, Ont.	Little Current	4 00
3019	do	17.	S. T. Salter	Mate	Diligent River, N.S.	Parrsboro'	2 00
3020	do	17.	S. Taylor	do	Lakeport, Ont.	Kingston	2 00
3021	do	24.	William Power	do	Halifax, N.S.	Halifax	2 00
3022	do	24.	E. Rorke	Master	Pictou, Ont.	Pictou	4 00
3023	do	24.	J. A. Clarke	do	New Westminster, B.C.	Victoria	4 00
3024	Mar.	6.	N. Hobin	Mate	Port Greville, N.S.	Parrsborough	2 00
3025	do	7.	W. H. Hoar	Master	Warton, N.B.	St. John, N.B.	4 00
3026	do	10.	M. Knowlton	Mate	Advocate, N.S.	Parrsborough	2 00
3027	do	13.	P. Leacy	Master	Cardinal, Ont.	Ottawa	4 00
3028	do	13.	B. McGrath	do	Port Dalhousie, Ont.	St. Catharines	4 00
3029	do	16.	J. Lanontague	do	Bienville, Lévis, Que.	Quebec	4 00
3030	do	21.	L. Dorland	do	Bronte, Ont.	Ottawa	4 00
3031	do	24.	Wm. Joyce	Mate	do	do	2 00
3032	do	27.	A. A. Belrose	Master	Penetanguishene, Ont.	St. Catharines	4 00

Steamboat Inspection.

List of Service Certificates granted to Masters and Mates, &c.—*Concluded.*

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1893.					\$ cts.
3033	April 1.	W. H. Inch	Master..	Bruce Mines, Ont.	Ottawa	4 00
3034	do 1.	M. McGlade	do	Brockville, Ont.	Kingston	4 00
3035	do 1.	J. Blakeney	do	Dartmouth, N.S.	Halifax	4 00
3036	do 7.	C. Taylor	do	Belleville, Ont.	Kingston	4 00
3037	do 10.	S. M. Huntley	do	Economy, N.S.	Parrsborough	4 00
3038	do 10.	J. Vigneau	do	St. Grégoire, Que.	Sorel	4 00
3039	do 13.	J. Malette	do	Brockville, Ont.	Brockville	4 00
3040	do 15.	R. A. Elliott	do	St. John, N.B.	St. John	4 00
3041	do 18.	E. G. Laverdure	do	Ottawa, Ont.	Ottawa	4 00
3042	do 21.	R. Chevrier	do	St. Joseph de Sorel, Que.	Quebec	4 00
3043	do 21.	P. Chevrier	do	do	do	4 00
3044	do 25.	A. G. Sules	Mate	Clements, West, N.S.	St. John	2 00
3045	do 26.	A. Prichard	do	Diligent River	Parrsborough	2 00
3046	May 2.	J. Clark	Master	Quebec	Quebec	4 00
3047	do 5.	F. R. Nicol	do	Sault Ste. Marie, Ont.	St. Catharines	4 00
3048	do 4.	D. Rooney, jun	do	Cobourg, Ont.	Ottawa	4 00
3049	do 19.	L. Winter	do	Lindsay, Ont.	St. Catharines	4 00
3050	do 23.	A. Solomon	do	Markville, Ont.	do	4 00
3051	do 25.	W. Price	Mate	Louisburg, N.S.	Halifax	2 00
3052	do 29.	G. H. Wilbur	Master	St. John, N.B.	St. John	4 00
3053	June 3.	A. A. McLaren	do	Warton, Ont.	St. Catharines	4 00
3054	do 20.	George Day	do	Long Reach, N.B.	St. John	4 00
3055	May 15.	Benjamin Smith	do	Washburn, Ont.	Kingston	4 00
3056	June 27.	John W. Ward	do	Advocate, N.S.	Parrsborough	4 00
3057	do 29.	A. McCullough	Mate	St. John, N.B.	St. John	2 00

List of Certificates of Competency granted to Masters and Mates, Foreign Sea-going, during the year ended 30th June, 1893.

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1892.					\$ cts.
2963	July 4.	J. McGee	Master.	Liverpool, Eng.	St. John	10 00
2964	do 4.	M. J. Hanson	Mate	St. John, N.B.	do	5 00
2965	do 4.	G. H. Marsters	Master.	Hantsport, N.S.	Halifax	10 00
2966	do 4.	J. L. Mosher	do	Avondale, N.S.	do	10 00
2967	do 4.	John Pratt	do	Cheverie, N.S.	do	10 00
2968	do 20.	W. H. McKenzie	Mate.	St. John, N.B.	St. John	5 00
2969	do 20.	J. E. Jeffery	do	do	do	5 00
2970	Aug. 1.	G. L. Fraser	do	Hantsport, N.S.	Halifax	
2971	do 19.	E. McCully	do	Londonderry, N.S.	do	5 00
2972	do 19.	M. J. Porter	Master.	The Wedge, Co. Yarmouth, N.S.	Yarmouth	10 00
2973	Sept. 26.	J. Robertson	do	Lockeport, N.S.	St. John	10 00
2974	do 26.	W. M. Collins	do	Advocate Harbour, N.S.	do	10 00
2975	do 26.	E. S. Crowe	do	Burnt Coat, N.S.	Halifax	10 00
2976	do 30.	J. E. Jones	Mate	Wolfville, N.S.	do	5 00
2977	do 30.	A. H. Cann	do	North Sydney, C.B.	do	5 00
2978	do 30.	A. Madder	do	Mahone Bay, N.S.	do	5 00
2979	do 30.	R. Morley	Master.	Halifax, N.S.	do	10 00
2980	do 30.	G. R. Marsters	Mate	Summersville, N.S.	do	5 00
2981	do 30.	A. E. Gilpin	Master.	Halifax, N.S.	do	10 00
2982	Oct. 28.	D. Fitzpatrick	do	St. John, N.B.	St. John	10 00
2983	do 28.	C. LeB. Carter	2nd Mate	Hopewell Cape, N.B.	do	5 00
2984	Nov. 4.	E. Perry	Mate	Cape Negro, N.S.	Yarmouth	5 00
2985	do 4.	J. L. Hemeon	Master.	Plymouth, N.S.	do	10 00
2986	do 21.	A. E. Hines	Mate	Bridgewater, N.S.	Halifax	5 00
2987	do 21.	H. N. Burgess	do	Cheverie, N.S.	do	5 00
2988	do 21.	W. M. Rose	do	do	do	5 00
2989	Dec. 5.	W. A. Davis	2nd Mate	Yarmouth, N.S.	Yarmouth	5 00
2990	do 5.	J. O'Donnell	Mate	Hantsport, N.S.	do	5 00
2991	do 21.	G. N. Kennealy	do	Harbourville, N.S.	St. John	5 00
2992	do 21.	E. Reid	do	River Hebert, N.S.	do	5 00
2993	do 21.	J. W. Bruton	do	St. John, N.B.	do	5 00
2994	do 21.	C. H. Publicover	do	Blandford, N.S.	do	5 00
2995	do 21.	P. F. Loomer	Master.	Spencers Island, N.S.	do	10 00
2996	do 28.	H. P. Smith	do	Cheverie, N.S.	Halifax	10 00
2997	do 28.	Irving Lewis	Mate	Sydney, C.B.	do	5 00
	1893.					
2998	Jan. 11.	L. A. Ljungberg	Master.	St. John, N.B.	St. John	10 00
2999	do 25.	W. L. Cook	Mate	Melbourne, N.S.	Yarmouth	5 00
3000	do 30.	R. M. Burns	do	Victoria, B.C.	Victoria	5 00
3001	Feb. 1.	R. MacIver	Master.	do	do	10 00
3002	do 10.	F. L. Davison	do	Hantsport, N.S.	Halifax	10 00
3003	do 10.	C. Lorway	do	Sydney, B.C.	do	10 00
3004	do 21.	C. H. Ryder	do	Lower Granville, N.S.	St. John	10 00
3005	do 21.	C. Ritcher	Mate	St. John, N.B.	do	5 00
3006	do 28.	E. W. Spurr	do	Clements, N.S.	Yarmouth	
3007	do 28.	J. S. Nickerson	Master.	Port Latour, N.S.	do	
3008	Mar. 10.	J. E. Root	Mate	Clementsport, N.S.	Halifax	5 00
3009	do 15.	C. R. Grant	Master.	Weymouth Bridge, N.S.	St. John	10 00
3010	do 15.	W. A. Finlay	do	St. John, N.B.	do	10 00
3011	do 15.	G. R. Curwin	Mate	Richibucto, N.B.	do	5 00
3012	do 17.	J. B. Pouliot	2nd Mate	St. Jean, Isle of Orleans	Quebec	5 00
3013	do 17.	S. B. Mercier, jun.	do	Lévis, Que.	do	5 00
3014	April 12.	D. A. Scott	Master.	Windsor, N.S.	Halifax	
3015	do 12.	A. Duff	do	St. John, N.B.	Yarmouth	
3016	do 18.	J. Desmond	Mate	do	St. John	
3017	do 18.	P. Anderson	do	do	do	
3018	do 18.	T. A. Grant	do	Weymouth, N.S.	do	5 00
3019	do 18.	H. B. Fitzgerald	do	do	do	5 00
3020	do 28.	J. O. Larochele	2nd Mate	St. Michel, Que.	Quebec	5 00
3021	May 8.	W. Wyman	do	Yarmouth, N.S.	Yarmouth	5 00

Steamboat Inspection.

List of Certificates of Competency granted to Masters and Mates, &c.—*Concluded.*

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
						\$ cts.
3022	May 15	J. W. Ellis	Master	Yarmouth, N.S.	Yarmouth	
3023	do 15	A. F. McDonald	Mate	Pictou, N.S.	Halifax	
3024	do 15	F. A. Marsters	do	Burkington, N.S.	do	5 00
3025	do 15	P. Bezauson	Master	Hantsport, N.S.	do	10 00
3026	do 15	Perry E. Knowlton	do	Advocate Harbour, N.S.	St. John	10 00
3027	do 15	S. W. Welling	Mate	Basie Verte, N.B.	do	5 00
3028	June 6	S. H. Cook	do	Ohio, N.S.	Yarmouth	5 00
3029	do 6	E. H. Porter	Master	Yarmouth, N.S.	do	
3030	do 6	F. Burns	Mate	Windsor, N.S.	do	5 00
3031	do 13	J. F. Dill	Master	Newport, N.S.	Halifax	
3032	do 13	C. W. Mason	Mate	Pictou, N.S.	do	5 00
3033	do 13	H. S. Bagnell	do	Cape Breton, N.S.	do	5 00
3034	do 13	J. D. McKenzie	Master	Pictou, N.S.	do	10 00
3035	do 22	J. H. Holmes	do	St. John, N.B.	St. John	10 00

APPENDIX No. 59.

STATEMENT of Wrecks and Casualties reported as having occurred to British, Canadian and Foreign Sea-going Vessels, in Canadian waters, and to Canadian Sea-going Vessels in other waters, for the calendar year ended 31st December, 1893.

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port bound to.	Place where Casualty happened.	Description of Casualty.	Lives lost and saved.	Remarks.
1893.										
Jan. 6	Annie Pearl	Nw	Parrsboro' N.S.	Schr., wood, sail	40	Boston, U.S., to Can- ning, N.S.	Cutter Harbour, Me.	Vessel collided with the wharf.	Partial loss.	300
Mar. 7	Amy Hanson	5	Boston, Mass.	do	103	Boston, U.S.	Barrington Harbour, N.S.	Stranded on a bar.	do	800
do	Amy D.	10	Parrsboro' N.S.	do	99	San Domingo, W. I., to New York.	80 miles south of Sandy Hook.		do	140
29	Annie		Lunenburg, N.S.	do	156	Gold River, N.S., to Havana, Cuba.	At sea.	Vessel sprung a leak in a violent gale.	do	5,000
20	American Union.		Halifax, N.S.	Barque, wood, sail	262	St. John, N. B., to Sydney, C. B.	to 100 miles east of Sable Island, N.S.	Pumps gave out and heavy gale.	Cargo	1,680
do	American Union.		Halifax, N.S.	Barque, wood, sail	262	St. John, N. B., to Sydney, C. B.	to 100 miles east of Sable Island, N.S.	Pumps gave out and heavy gale.	Total loss.	2,000
do	Aquatic	8	St. John, N.B.	do	361	Cuba to Boston, U.S.	Sow and Figs Reef, U.S.	Casualty caused by strong current and wind.	do	12,000
do	Arca	10	do	do	314	Ship Island, Mississippi to Colon, U.S.	Cuba.	Casualty caused by strong current and wind.	Cargo.	39,000
April 27	Albertina	3	Windsor, N.S.	do	654	Buenos Ayres to Boston	Nantucket, U.S.	Thick weather and gales cause of casualty.	Total loss.	12,000
May 9	Angelina	1	St. John, N.B.	Schr., wood, sail	124	Halifax, N.S.	1 mile S.E. of West Pt. Light.	This vessel went ashore in thick weather.	Partial loss.	3,000
do	Aurus		do	do	89	Rookland, Me., to St. John, N.B.	Cobb's Wharf, Rock- land, Me.	Stranded in a heavy gale.	do	3,000
Jan. 27	Ajar		Arrichat, N.S.	Barque, wood, sail	40	Arrichat, N.S., to Guy- boro, N.S.	Entrance to Guyaboro' Harbour.		Partial loss.	175
Mar. 4	Aldwyth	9	St. John, N.B.	do	218	Hayti to Provincos, R. I.	30° N., 74° W., Atlantic Ocean.	Vessel struck on a rock and subsequently be- came a total wreck.	Total loss.	800
do	Alpheus Marshall	12	Digby, N.S.	do			Atlantic Ocean	Foundered.	Cargo.	4,800
do	Adria	20	St. John, N.B.	Schr., wood, sail	194	St. John, N.B., to New York.	Pond Inland Reef, Me.		Total, unknown.	500
Aug. 10	Acadia	20	do	do	95	New York to St. John, N.B.	Chatham Lights, Mass.	Ran into by stmr. H. T. Dimock.	Total loss.	750
									Cargo.	700

STATEMENT of Wrecks and Casualties to Sea-going Vessels, &c.—Continued.

Date of Casualty.	Name of Ship.	Age of Vessel.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port bound to.	Place where Casualty happened.	Description of Casualty.	Lives lost and saved.	Remarks.
1893.										\$
Aug. 6	Chautauquay	6	Parraborough, N.S.	Schr., wood, sail	97	Louisburg to St. John, N.B.	Near St. Esprit, Cape Breton, N.S.	Sprung aleak and sunk.		Total. (Unknown.)
do	Catherine	3	Yarmouth, N.S.	Barque, wood, sail.	798	Pensacola to Rio de Janeiro.	do do	do	7	Total. 2,500
Oct. 14	C. B. Benson		American.	do	284	Buffalo to Detroit.		Foundered in a heavy sea and terrific wind.		Total. (Not known.)
do	County of Yarmouth.	9	Yarmouth, N.S.	Ship, wood, sail	2,154	London to Sydney, C.B.	Petres Ledge, Sydney Harbour, C.B.	Stranded.		do
April 22	Dominion		do	Schr., wood, stem screw.	410	Yarmouth to Halifax.	Big Duck Island, N.S.			Total. 15,000
July 19	David Vance		Buffalo, N.Y.	Schr., wood, sail.		Erie, Ont., to Chicago.	Near Dummy Light, Lake Erie.	Sunk in collision.		Total loss. (Unknown.)
Jan. 26	Ethel	8	Yarmouth, N.S.	do	117	Tusket Wedge, N.S., to Yarmouth, N.S.	Hen and Chicken Reef, Yarmouth Harbour.	Casualty caused by heavy gale.		Partial. 600
April 27	Eldon	6	Pictou, N.S.	do	21	Mabou, N.S., to Pictou, N.S.		Casualty caused by violent gale.		Cargo. 2,300
do	Esperance	9	Magdalen Islands.	do	31	Barbadoes to New York.	South Beach, Magdalen Island.	Vessel struck ice or rocks.	10	Cargo. 60 Total. 800
May 12	Enigma	22	St. John, N.B.	Barque, wood, sail.	649	Barbadoes to New York.	Caribbean Sea.	Foundered.		Total loss. (Unknown.)
April 26	Ethel Graville	12	Parraborough, N.S.	Schr., wood, sail.	110	St. John, N.B., to Bridgeport, N.S.	Off Cutlers, Maine.	Lost foremast.		Partial. 200
July 15	Emma G.	15	St. John, N.B.	do	82	St. John, N.B., to Quaco, N.B.	Ploughshare Point, N.B.	Vessel was becalmed. She ported her chains.		Total. 1,400
Sept. 9	Eva J. Moore	4	Parraborough, N.S.	do	99	St. John, N.B., to River Herbert, N.S.	St. John Harbour.	Collided with schooner "Advance."		Partial. 130
July 15	Exception	1	do	Barque, wood, sail.	389	Boston.	Boston Harbour, Mass.	Run into by a Norwegian steamer.		do 700
Aug. 25	Esther Roy	16	Maitland, N.S.	Ship, wood, sail.	1,481	Bristol to North Sydney.	Sydney Harbour, N.S.	Casualty caused by mistaking steamers whistle for fog-horn.		do 5,000
do	Edmund Russel	22	Arichat, N.S.	Steamer	27	Port Hawkesbury, fish-ing.	Shippegan Harbour, N.B.	Drifted on shore in a gale		do 300

Steamboat Inspection.

Date	Name	Age	Home	Material	Tonnage	Trade	Incident	Result	Total
Sept. 20	Eva J. Moore	4	Parraborough, N.S.	Schr. wood, sail	39	River Herbert to St. John, N.B.	Vessel sprung a leak and sunk.	Partial.	2,500
Oct. 18	Edward Everett	27	do	do	57	St. John, N.B., to Canning River, N.S.	Vessel struck on bank in the river.	Partial.	300
do 11	Euazine	24	Yarmouth, N.S.	do	38	St. Pierre to Chetsi-camp, C.B.	Foundered.	Total loss unknown	400
Aug. 22	Emma Proctor	12	Port Hawkesbury, N.S.	do	40	Fishing.	This vessel was caught in a heavy storm and washed ashore. Capt. drowned.	Partial.	500
do 21	Eivar Taurbak-jalver	38	Stein, Norway	Barque, wood, sail	1,145	Loading deals in Parraborough, N.S.	Lost anchor and chain in a gale.	do	200
do 21	Enterprise	12	Parraborough, N.S.	Schr. wood, sail	15	Rose Creek, N.S., to Avenport, N.S.	This vessel was found bottom up at Cape Blomidon.	do	115
Feb. 4	Flora E.	11	Parraborough, N.S.	Schr. wood, sail	79	Parraborough to St. John, N.B.	This schooner was damaged by storm.	Partial loss. Cargo.	900
Aug. 21	Farragut	28	Gloucester, Mass.	do	48	Gloucester, fishing.	Stranded in a gale.	Total loss.	70
Feb. 1	Glenola	..	Windsor, N.S.	do	124	Hayti to New York	..	Total loss.	1,800
April 26	Geneveta	6	Pictou, N.S.	do	22	Murray Harbour to Pictou.	This vessel went ashore.	Cargo. Partial loss.	4,000
23 Feb.	Gladys McLanolin	1	British	do	420	Rarhadoc to Cuba.	Casualty caused by violent storms and high seas.	Cargo. Partial loss.	600
April 7	Gladstone	2	Parraborough, N.S.	do	156	New York to Advocate, N.S.	Casualty attributed to error on chart.	Total loss.	20,000
May 5	Gladstone	2	do	do	156	Advocate to New York	Stranded.	Partial loss.	650
Grace Butler	..	..	Halifax, N.S.	Barque, wood, sail	150	Halifax to Porto Rico.	Displaced buoy.	do	1,000
G. A. Good	..	19	Parraborough, N.S.	Schr. wood, sail	59	In port at West Bay, N.S.	Vessel was struck by a heavy gale and capsized!	Total loss.	6,000
May 16	G. E. Bently	1	do	do	260	Port Granville, N.S., to New Haven, Conn.	Collision.	Partial loss.	10
Aug. 6	Grandholm	9	Aberdeen	Schr. iron, steam.	871	San Francisco to Nainimo, B.C.	Vessel run into by an unknown steamer.	do	600
do 22	Golden Rule	1	Port Hawkesbury, N.S.	Schr. wood, sail	42	Port Hawkesbury, N.S. to Souris, P.E.I.	Dense fog and rapid tide.	do	700
Jan. 10	Hattie	28	N.B.	do	10	St. John, N.B.	On the west side of Pleasant Bay.	Total loss.	700
Aug. 22	Herbert E.	19	Boston, Mass.	do	372	Port Bivia, Sydney, to Chester, U.S.	Vessel stranded in a thick fog.	Cargo. Partial loss.	500
June 19	Havre	14	Windsor, N.S.	Barque, wood, sail	642	Cienfuegos to Philadelphia.	Stranded in a storm and sprung a leak.	Cargo. Partial loss.	400
Aug. 21	Hyra	..	Halifax, N.S.	do	67	Charlottetown to Port Hawkesbury.	Ship went on shore.	Total loss.	10,000
do 21	Harriet Torrey	37	Shelburne, N.S.	Schr. wood, sail	59	Auld's Cove, N.S. to McAlpine Creek, Lower Jordan Bay.	Vessel sprung a leak, rough weather. Dragged ashore in a gale of wind.	Partial loss. Cargo. Total loss.	200

STATEMENT OF WRECKS and Casualties to Sea-going Vessels, &c.—Continued.

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port bound to.	Place where Casualty happened.	Description of Casualty.	Lives lost and saved.	Remarks.
1893.										\$
Oct. 14	Hecla		American	Sloop, wood, steam.		Ogdensburg	3 miles east of Wellington Beach.	Vessel lost hirmsketch and could not keep up steam.		Total loss 1,000
Nov. 16	Harold	5	London, Eng.	Barque, steel, sail.	1,299	New York to Victoria, B.C.	Rosedale Rock, Juan de Fuca Straits.	Stranded on Rosedale Rock.		Extent of loss not known.
Sept. 13	Hattie F. Rich	17	Yarmouth, N.S.	do	92	Eastport	Atlantic Ocean	Vessel struck by hurricane.		Total loss 2,500 Cargo 250
April 27	Inglewood	4	St. John, N.B.	Schr., wood, sail.	124	St. John, N.B., to Cow Bay.	7 miles east of Maine, U.S.	Casualty caused by thick snowstorm and gale.		Total loss 6,000
22 Aug. 11	Ida B.	9	do	do	53	Discharging a cargo of deals at West Bay, Parrboro', N.S.	West Bay, Parrboro', N.S.	Went on shore in a gale.		Partial loss 150
May 7	J. A. Silver	3	Lunenburg	do	91	Lunenburg, N. S., to Canso, N.S.	9 miles S.W. of White Head, N.S., Atlantic Ocean.	Collided with str. Havana	2	do 2,500 Cargo 1,000
Feb. 23	J. A. McDonald	4		do	286	Seattle, Wash., to Victoria, B.C.	Prevost Island	Caught fire.		Total loss. (Not known.) Total loss 14,000
do 14	J. C. Ford	11	San Francisco, U.S.	do	231	San Francisco to Gray's Harbour	South Spit, Gray's Harbour Bar.	Fire		Partial loss 300
Aug. 23	James G. Blaine		Gloucester, U.S.	do	98	Gloucester, Mass., to Souris, fishing.	Near the Magdalen Islands.	Parted chains and lost anchors in a gale.		do 150
do 21	J. W. Dean	23	St. John, N.B.	do	85	Discharging deals at West Bay, Parrboro'		Driven ashore in a heavy gale.		do 486
do 21	Jessie D.	7	Parrboro', N.S.	do	86	Boston to River Herbert.	Entrance to Portland Harbour, U.S.	Went ashore		do 1,500
Oct. 18	James Dwyer	18	Gaspé, Que.	do	94	Gaspé to St. John, N.B.	Entrance to St. John River.	Stranded		do 1,500
July 6	John F. Sayer	8	St. John, N.B.	Ship, wood, sail.	1,548	Iloilo to Montreal	11 miles east of Cape Ray, Nfld.	Stranded in a fog.		Total loss 50,000 Cargo 170,000
Mar. 2	Knight Templar	13	Shelburne, N.S.	Schr., wood, sail.	90	Turk's Island to Lockeport, N.S.	Turk Island Light	Sprung a leak in heavy sea.		Total loss. (Not known.)
June 8	Kerlie	9	St. John, N.B.	do	124	Shulee, N.S., to Boston	E. Reef entrance Shulee, N.S.	Vessel stranded on the reef.		Partial loss 3,000

Steamboat Inspection.

April 8	Lizzie B.	3	Parrsborough, N.S.	do	96	Port Greville to New Haven, Conn.	St. John River.	Vessel dragged her anchor and went ashore.	do	1,223
April 27	Levins.	9	Windsor, N.S.	Barque, wood, sail.	1,426	New York to Sydney, N.S.	Lake Erie.	This vessel met with bad weather and was damaged.	do	3,000
July 19	Lizzie A. Low.	29	Chicago	do	742	St. John, N.B., to Cork Island.	Black Ledge, Mud Island.	Stranded.	Total loss. (Not known.)	2,500
July 7	Lottie Stewart.	3	St. John, N.B.	do	87	Lunenburg, N.S.	Entrance to Canoe Harbour, N.S.	do	do	600
June 2	Lawrence.	7	Lunenburg, N.S.	Schr., wood, sail.	1,774	Windsor, N.S.	Off Cape Good Hope, Africa.	Fire.	Total loss.	50,000
Mar. 29	Lucania.	3	Windsor, N.S.	Ship, wood, sail.	496	Calcutta to New York.	600 miles south of Rio Janeiro, S. Atlantic.	Struck by heavy seas.	Partial loss.	10,000
July 1	Lacomis.	20	Parrsborough, N.S.	do	348	New York to Montevideo.	Oswego to Toronto.	Vessel sunk in Lake Ontario.	Total loss.	1,500
Aug. 13	Laura.	12	Windsor, Ont.	Schr., wood, sail.	87	St. John to Boston.	Thatchers Island, U.S.	Struck on shoals and filled with water.	do	1,500
do 24	Lottie B.	26	St. John, N.B.	do	32	Halifax, N.S.	Main-a-Dieu to Halifax N.S.	Stranded in gale and heavy seas.	Partial loss.	
do 17	Laura Ann.	16	Halifax, N.S.	do	26	Pictou, N.S.	Port Hawkesbury C.B. to Sydney, C.B.	Stranded in a gale.	do	175
do 21	L. A. Made.	17	Pictou, N.S.	do	816	Laura	Toronto to Oswego.	Vessel sprung a leak.	Total loss.	9,000
do	Laura	17	Windsor, N.S.	do	126	Ladlock.	Liverpool to Honolulu.	Vessel struck owing to the shifting nature of the channel.	Cargo.	3,000
do	Ladlock.	3	Liverpool, Eng.	Barque, iron, sail.	371	Mineola.	Fernandina to Delmarva.	Abandoned at sea.	Total loss.	35,000
Jan. 6	Mineola.	3	Windsor, N.S.	Schr., wood, sail.	94	Moss Rose.	New York to Montevideo.		Total loss.	2,000
do	Moss Rose.	21	St. John, N.B.	Barque, wood, sail.	56	Maudie.	Victoria, B.C., to Nanaimo.	Casualty caused by wheel chains being carried away.	Partial loss.	900
Mar. 10	Maudie.	26	Victoria, B.C.	Schr., wood, sail.	121	Mariner.	Port Hawkesbury to Georgetown, P.E.I.	Casualty caused by thick snow storm.	do	2,000
do	Mariner.	2	Halifax, N.S.	do	121	Myrtle.	Wellington, N.C., to Port au Prince.	Vessel sprung a leak.	do	250
April 19	Myrtle, M.	2	Parrsborough, N.S.	do	1,283	Myrtle, M.	Havana to Wellington, N.C.	Stranding.	do	1,200
Feb. 28	Myrtle, M.	30	Port Hope.	Steamer.	136	Magnificent.	Lindsay to Boboysgon Barrow-on-furness to Quebec.	Shifting ballast and failing of pumps.	Total loss.	(Not known.)
May 3	Magnificent.	3	Liverpool.	Ship, sail.	65	Marion.	Halifax, N.S., to Philadelphia, U.S.A.	Grounded on shoals.	Loss not known.	
do 12	Marion.	15	do	Schr., wood, sail.	118	Maud M.	Richibucto to Vancouver.	Vessel ran rock and sunk.	Total loss.	150
do 26	Maud M.	15	Richibucto, N.B.	do		Mary E. McDougall.	Wager Island east side South Pacific.	Collision on account of there not being a lookout on vessel.	Partial loss.	
Sept. 10	Mary E. Mc Dougall.	15	Halifax, N.S.	do			Boston to Pasphebiac.			

STATEMENT of Wrecks and Casualties to Sea-going Vessels, &c.—Continued.

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port bound for.	Place where Casualty happened.	Description of Casualty.	Lives lost and saved.	Remarks.
1893.										
Aug. 26	M. C. McLean.	26	Arichat, N.S.	Schr., wood, sail.	67	Boston to Arichat.	Blond Rock, off Sea Island, N.B.	Vessel run on a rock on account of astrong tide.	.....	Partial loss. 150
do	Mary Eleanor.	19	Halifax, N.S.	do	98	Chatham, N.B., to Providence, R.I.	Between west point and Cape Egmont, P. E. I.	Vessel damaged in a gale.	.....	do 50
do	Mascotte.	3	Victoria, B.C.	do	192	Victoria, B.C., to Alberin.	Pachene Bay.	Fire.	.....	Total loss.
Sept. 2	Mary E. McLaughlin.	18	Arichat.	do	167	Daniel, P. Q., to Boston	Stranded, North Head, Daniel, P. Q.	Heavy gale and high seas.	.....	do 2,200
Aug. 19	Mary Jane.	3	Sydney, C.B.	do	89	Cow Bay to Halifax.	Salmon Rocks, C. B.	Stranded owing to heavy sea.	.....	do 2,200
do	May Flower.	25	St. John, N.B.	do	70	St. John, N.B., to Estorville, N.S.	Spicers Cove, Cumberland, N.S.	Dragged her anchor in a gale.	.....	do 600
do	Moneta.	2	Annapolis, N.S.	do	199	Annapolis to Barbadoes	North Atlantic Ocean.	Vessel dismasted in a hurricane.	.....	Cargo. 45 Total loss. 12,000
Sept. 30	MacLeod.	20	St. John, N.B.	Barque, wood, sail.	594	At anchor at Richibucto, N.B.	Sardbar, Richibucto, Harbour, N.B.	Vessel parted chains and became a total wreck.	.....	Total. 12,000 Cargo. 5,000
Nov. 20	Minnie May.	8	Charlottetown, P. E. I.	Schr., wood, sail.	59	Charlottetown to Picton, N.S.	Roy's Island, Picton, N.S.	Stranded in a snow storm and gale.	.....	Partial. 140
do	Mary B.	13	Arichat, N.S.	do	78	Orwell, P. E. I., to Halifax, N.S.	Point Prince, Woody Island, P. E. I.	Damaged in a squall.	.....	Extent of loss not known.
June 6	Marion.	.....	Halifax, N.S.	do	269	Port Mulgrave to Grand Narrows.	Bras d'Or Lake, N.S.	Stranded on shoal.	.....	Partial. 2,000
Jan. 30	Navarch.	15	Yarmouth, N.S.	Barque, wood, sail.	994	Philadelphia to Dunlirk.	Atlantic Ocean.	Foundered in a storm.	.....	Total. 2,500 Cargo. 4,500
do	Northern Empire.	13	Windsor, N.S.	do	950	Philadelphia to Genoa.	At sea.	Sprung a leak.	.....	Partial. 3,400 Cargo. 2,000
Mar. 29	Nellie Parker.	8	St. John, N.B.	Schr., wood, sail.	183	Havana.	Near Florida.	Casualty caused by heavy gales.	.....	Total. 6,000
Jan. 7	Nellie Shaw.	3	Parraboro, N.S.	do	250	St. John, N.B., to St. John, Nfld.	Atlantic Ocean.	Heavy gales damaged sail and destroyed part of the cargo.	.....	Partial. 1,000 Cargo. 800
Feb. 23	Nellie Shaw.	3	do	do	250	St. John, N.B., to Port Mulgrave.	do	Damaged by heavy gales.	.....	Partial. 1,200

Steamboat Inspection.

Date	Name	Age	Material	Home Port	Where	Particulars	Loss	
Jan. 5	6/Notilus	5	Windser, N.S.	do	11	Chipman's Brook to Refuge Cove	Parted chains in a heavy gale.	Total. 300
June 16	Novelty	12	do	do	97	Dalhousie Harbour, N.B.	Fire.	Total. 2,400
Aug. 21	Nancy Anna	...	Yarmouth, N.S.	do	35	Lying at West Bay, Parraboro', N.S.	Caught by schooner Risk and broken adrift.	Cargo. 500 Partial. 200
do 8	No. 4	new	Parraboro, N.S.	wood,	430	St. Andrews to Parraboro'.	Struck on a ledge of rocks while being towed.	Partial. 260
do 28	Nelly Murphy	12	Yarmouth, N.S.	wood,	1374	Pensacola to Dundee.	Atlantic Ocean.	Total. 35,000
Oct. 15	Nellie Shaw	3	Parraboro, N.S.	wood,	260	Liverpool, N.S., to Hillaboro', N.S.	Vessel stranded in a gale.	Total. 10,000
.....	Ocean Star	.....	Halifax, N.S.	do	.....	Sydney, C.B.	.....	.....
May 17	Oseco	.....	St. John, N.B.	do	95	Moncton, N.B., to Salem, Mass.	Casualty caused by thick weather and high sea.	Total. 2,500
Aug. 17	Otto and Antonis	28	.....	Ship,	1277	Quebec to London.	Stranded in thick stormy weather.	Cargo. 500 Total. 1,000 20,000
.....	Oseola	.....	Halifax, N.S.	sail,	80	Gabarus, C.B.	Went on shore.	Total. 2,000
Mar. 6	Percy H. Reed	9	Digby, N.S.	do	148	Bear River to Barba-dia.	The ship was dismasted by wind.	Partial. 4,000
Feb. 22	Phoenix	10	Parraboro, N.S.	do	396	St. John, N.B., to New York.	Vessel partially wrecked in a snow storm.	Partial. 600 Cargo. 500
.....	Platina	6	do	Barque,	297	Greenland to Philadelphia.	The vessel has not been heard of since the 14th Aug., and she has been posted missing.	Total. 500
Sept. 6	Price Brothers	.....	do	Schr.,	79	Canning, Parraboro' to Boston.	Fire.	Total. 500
Aug. 17	Plenora	10	Lunenburg, N.S.	sail,	95	Gabarus, Cow Bay to Halifax.	Stranded in a gale and high sea.	Partial. 2,500
do 29	Pontecorro	32	Norway	Barque,	.....	Fleetwood, G.B., to Miramichi, N.B.	Stranded in a storm and became a total loss.	Total loss not known.
Jan. 24	Quebec	26	Windser, N.S.	sail,	1509	Dublin to St. John, N.B.	Ship was abandoned.	Total. 18,000
Aug. 21	Quickstep	18	Port Hawkesbury, N.S.	Schr.,	35	Port Richmond, fishing voyage.	Stranded.	Partial. 200
Jan. 1	Rita	1	Annapolis, N.S.	sail,	197	Jacksonville, Florida, to Demerara.	Sprang a leak; caused by heavy sea.	Total. 12,000
Mar. 1	Rewa	1	Parraboro, N.S.	do	145	Barbados to Portland.	Struck by heavy gale.	Partial. 1,000
do 30	Romuens	3	Hamburg	do	1707	San Francisco to San Diego, Cal.	Struck on rock in Portier Pass, Vancouver Isld.	Extent of loss unknown.
June 5	Reaper	13	St. John, N.B.	do	124	River, Herbert, N.S., to Boston, Mass.	Wind shifted and vessel missed stays.	Partial. 1,000
Aug. 21	Risk	46	Parraboro, N.S.	do	68	Discharging deals at West Bay to Parraboro', N.S.	Went ashore in big gale.	Partial. 120
Oct. 5	Rita	new	St. John, N.B.	Steamer	11	Coles Island, N.B., to St. John, N.B.	Fire.	Total. 6,445

STATEMENT of Wrecks and Casualties to Sea-going Vessels, &c.—Continued.

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port sailed to.	Place where Casualty happened.	Description of Casualty.	Lives lost and saved.	Remarks.
1893.										
Feb. 3	Swanhill	7	Annapolis, N.S.	Schr., wood, sail.	119	Annapolis to Barbados.	At sea	Bad weather	Partial loss not known.	
Mar. 10	Sea Foam	5	Sydney, C.B., N.S.	do	19	Sydney, C.B., to Touraine.	Gabarus Harbour	Went on shore in a gale of wind.	Partial.	450
April 7	Sea Foam	5	Sydney, C.B., N.S.	Schr., wood, sail.	19	Sydney, C.B., N.S.	Gabarus Harbour, N.S.	Chains parted in gale and ship went on shore.	Partial.	450
May 25	Still Water		St. John, N.B.	Barque, wood, sail.	1051	Havre to Philadelphia.	25 miles S. E. of Cape Delaware.	Collided with a British barque in a thick fog.	Total.	1,000
30	Sunbeam	17	Halifax, N.S.	Schr., wood, sail.	70	Newfoundland to Halifax, N.S.	Bay of Islands, Newfoundland.	Stranded.	Partial loss, not known.	
	Star in the East	17	Parrsboro', N.S.	do	24	Discharging deals at West Bay, Parrsboro, N.S.	West Bay, Parrsboro, N.S.	This schooner went ashore in a heavy gale.	Partial.	100
Aug. 29	Suva	24	do	do		Port Grenville, N.S., to West Bay, N.S.	Near Port Grenville, N.S., Minas Gut, N.S.	Went ashore in a heavy gale.	do	200
do	Swallow	5	Jersey	do		New Carlisle to Anticosti, N.S.	20 miles N.E. of Miscon Island.	Heavy sea and gale	do	50
Oct. 3	Susan H. Ritchie	11	American	Schr., wood, sail.	513	New York to Canso.	Canso Harbour, at the north entrance.	Misleading buoys	do	500
Nov. 14	Saint Mary	10	Port Hawkesbury, N.S.	do	15	Margaree to Halifax	Broad Cove Shoal, C.B.	Stranded in a squall	do	300
Sept. 29	Stanley	39	Norway	Barque, wood, sail.	1142	Northport to Saltport, Eng.	Cariboo, Middle Shore, N.S.	Stranded on account of a very strong current.	Cargo.	500
do	Saskatchewan	10	Winnipeg, Man.	Steamer		Westbourne, Fairford, Westbourne	3 miles S. E. of Manitoula, Port, Man.	Fire	Partial.	1,000
Aug. 17	Thyra	30	Norway	Barque, wood, sail.	609	St. Thomas, Que., to Iloilo to Montreal	Gulf of St. Lawrence	Struck by hurricane	Total, not known.	
April 8	Treasurer	9	Parrsboro', N.S.	Ship, wood, sail.	1386	Waterford		Caught in a cyclone and lost her sails.	Partial.	2,000
Aug. 21	Three Sisters	15	St. John, N.B.	do	42	Parrsboro', N.S., to West Bay, N.S.	West Bay, N.S.	Stranded in a gale	Total.	250
Sept. 14	Tiger	5	Yarmouth, N.S.	Schr., wood, sail.	57	Pictou, N.S.	Trepansey Bay, Nfld.	Misstayd and went on shore and filled.	do	1,200
Jan. 18	Unexpected	10	Windsor, N.S.	do	117	Halifax, N.S., to Jamaica.	At sea	This vessel was abandoned at sea.	do	1,000

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Aug. 21	U. H. Upham	9	Parrsboro, N.S.	do	46	West Bay, Minas Gut, to Parrsboro, N.S.	Went on shore in a heavy gale.	Partial.	130
do	Vearing	40	Charlottetown P. E. I.	do	39	South Beach, Richibucto Bar, N. B.	Stranded in heavy sea and gale.	Partial loss, not known.	not known.
July 30	Warrior		Halifax, N.S.	do	102	10 miles south of Eastport, P. E. I.	Vessel sprung a leak	Partial.	400
do	Wallace	19	Pugwash			Port Hawkesbury, C. B., N. S.	Vessel foundered.	Total, not known.	
Oct. 1	White Swan		Parrsboro, N.S.	do	90	Cape Split, Minas Gut, N.S.	Lost her anchor in a gale.	Partial.	300
Sept. 7	Windermere	8 m.	Port Medway, N.S.	do	299	Gulf of Mexico	Capsized	Total.	15,000
do	Walleda	1	Parrsboro, N.S.	do	249	Sand Point Reef, Canso	Went ashore in a fog and had to jettison part of her cargo.	Partial Cargo.	1,900
Oct. 13	Wm. Bowden	1½	San Francisco	do	727	Victoria to Adelaide		Not known.	
do	Winnifred	20	Norway	Barque, wood, sail.	937	Off Work Island, Victoria, C. B.		Partial.	3,200
May	Yosemite	31	Victoria, B. C.	Steamer	1055	Glasgow, G. B., to Sydney, N. S.	Collision on account of a wrong command having been given.	Extent of loss unknown.	
Sept. 26	Zinn	29	Cardiff	Barque, wood, sail.	943	Victoria, B. C., to New Westminster. Quebec to Cardiff	Collided with steamer "Vanconver." Caught in a storm.	Extent of loss unknown.	

SUPPLEMENT to the Statement of Wrecks and Casualties reported as having occurred to British, Canadian and Foreign Sea-going Vessels during the calendar year 1893.

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port bound to.	Place where Casualty happened.	Description of Casualty.	Lives lost and saved.	Remarks.
1892.										
Dec. 22	Chautaugay	7	Parrboro', N.S.	Schr., wood, sail.	97	Demersars to Halifax, N.S.	10 m. off Kittle Hawk, N. Carolina, U.S.	Riggings carried away by storm.	Partial.	3,000
Dec.	Vesper	11	Liverpool	do	132	Halifax, N.S.	Atlantic Ocean	Casualty caused by strong current and heavy sea.	Total.	4,000
1880.										
April	W. D. Richard	1	Lunenburg, N.S.	do	98	LaHave, N.S., to Halifax.	Near Halifax Harbour, N.S.	Casualty caused by sudden squall which capsized vessel.	Total.	3,600 1,000
1892.										
July	Orontea	14	St. John, N.B.	Barque, wood, sail.	699	St. John to Cork		Vessel was damaged by heavy wind and sea.	Partial.	500
Nov. 4	Flora McLeod	6	do	do	48	St. Stephen, N.B., to St. John, N.B.	Mohawk Ledge, petit passage.	Strong tide and no wind; vessel went on shore.	Total.	3,000
Sept. 2	Leon	6	Lunenburg, N.S.	do	146	Lunenburg to Jamaica	Atlantic Ocean	Vessel became water-logged and was abandoned.	Total.	4,500 1,100
	Cashier		do	do	106	LaHave, bound home from fishing.	Northern part of Grand Banks, Newfoundland	Vessel supposed to have capsized.	Total.	4,500 2,000
Dec. 23	E. G. Glass		St. Andrews	do	30	Parrboro' to Canning, N.S.	Below Cheverie, N.S.	Vessel lost sails and went ashore.	Partial.	300
Dec. 4	James Water spoon.		Parrboro', N.S.	do	267	New York to Port Liverpool.	Courtown Keys, Caribbean Sea	Stranded.	Total.	10,000
Dec. 24	A. T. Davison		do	do	361	Windsor to New York	Off Hantsport, N.S.	Damaged by ice	Partial.	2,000
Dec. 27	Minister of Marine	18	St. John, N.B.	do	1,648	Liverpool to Rio Janeiro.	Belfast, Ireland	Spontaneous combustion.	Total.	40,000
Oct. 23	Lucey Ann	42	Rockland, Me., U.S.	do		Rockland, fishing.	3 miles S.W. from Seal Island.	Fire	Total.	7,000
	Alvin Kelley	17	Shelburne, N.S.	Brig, wood, sail	327	New York	New York	Supposed to have foundered at sea.	Total.	600
July 26	Maggie F.	11	Sydney, C.B.	Schr., wood, sail	92	Cuba	Breezy Point	Struck on a coral reef.	Total loss, not known.	3,000
Dec. 7	Arcilla	21	Annapolis, N.S.	do	95	Yarmouth to Pt. Gilbert, N.S.			Partial.	350

Steamboat Inspection.

STATEMENT of Wrecks and Casualties reported as having occurred to Canadian Inland Vessels during the calendar year 1893.

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port bound to.	Place where Casualty happened.	Description of Casualty.	Live lost and saved.	Remarks.
1893.										
June 8	Acadia	...	Hamilton, Ont.	Steamer	509	Montreal to Ft. William		Ran against a rock		Partial not known. Cargo. 40,000
Aug. 8	Bessie Louise	14	New Carlisle, P. Q.	Schr., wood, sail.	138	Port Daniel to Boston	Gulf St. Lawrence	Vessel sprung a leak in a gale.		Partial. 300
Sept. 13	Byron Terice	...	Waldceburg, Ont.	...	169	Cleveland to Road Eau	Leamington, Ont., while lying at dock.	Fire		Cargo. 200 Total. 75,000

SUPPLEMENT to the Statement of Wrecks and Casualties reported as having occurred during the calendar year 1893.

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How rigged. Iron or Wood. Steam or Sailing.	Register Tonnage.	Port sailed from. Port bound to.	Place where Casualty happened.	Description of Casualty.	Lives lost and saved.	Remarks.
1892.										
Oct. 1890.	Canada	20	Hamilton, Ont.	Sloop		Huron Bay	Port Huron	Fire		Total. \$ 8,000
Oct. 1892.	Undine	22	do	Schr., wood, sail.	195	Toronto to Toronto	15 m. west of Rochester, N. Y.	Foundered		Extent of loss not known.
Nov. 1891.	Hercules	22	Sarnia, Ont.	do	240	Sarnia, Ont.	Near Mitchell Bay Light.	Casualty caused by fury of storm.		Total. 6,000 Cargo. 1,500
Aug. 1891.	British Lion		Windsor, Ont.	do		Wheatley, Ont., to Era, U.S.A.				Partial loss, unknown.
Dec. 1892.	H. F. Deming		do	do	69					Total loss, not known.
Sept. 1892.	Starlight		do	Steamer	10-83	Spanish River to Massey, Ont.	Georgian Bay	Fire		Total unknown.